

Esther Friesner: How To Make Unicorn Pie

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JANUARY

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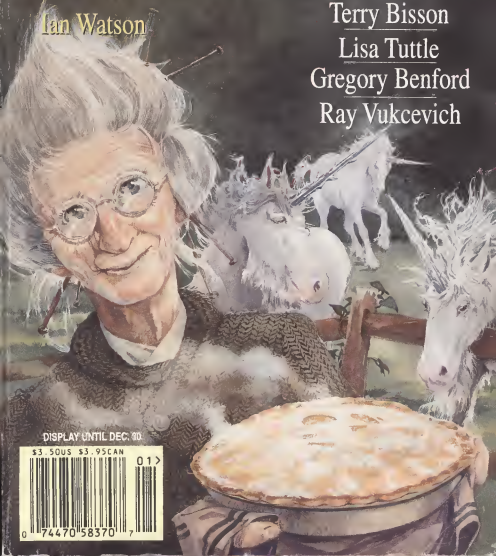
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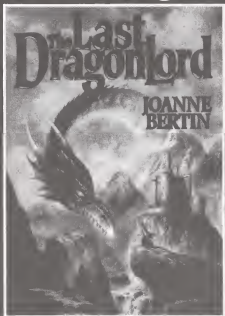


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Building up a high fluted rim, prepare in a 9-inch pie pan, baked flaky pastry crust.

Whisk in thoroughly

1 small New England town

2 searching hearts

1 astute observer

3 possibly-mythical animals

Fold in Esther Friesner's distinctive sense of humor, let simmer. Read at leisure and enjoy. Delicious!

How to Make Unicorn Pie

By Esther M. Friesner

I LIVE IN THE TOWN OF Bowman's Ridge, Vermont, founded 1746, the same year if not the same universe as Princeton University. But

where Princeton has employed the intervening centuries to pour forth a bounteous-if-bombastic stream of English majors, Bowman's Ridge has employed the same time to produce people who are actually, well, employable.

Bowman's Ridge is populated exclusively by three major ethnic groups, the two most numerous of which are Natives and Transients. I've lived here for twenty-five years, in one of the smaller authentic Colonial Era houses on Main Street. It has white clapboard siding, conservatively painted dark green shutters, the original eighteenth-century well, a floral clock, a flourishing herb garden, a rockery, and a paid-up mortgage. Local tradition claims that Ethan Allen once threw up here.

I'm still just a Transient. That's how the Natives would have it, anyway. On the other hand, at least I'm a Transient that they can trust,

or perhaps the word I want is *tolerate*. Just as long as I don't bring up the unfortunate subject of how I earn my living, everything is roses.

You see (and here I ought to turn my face aside and drop my voice to the requisite hoarse whisper reserved for all such disgraceful confessions), I...*write*.

UNCLEAN! UNCLEAN!

Someone get a firm hold on the carriage horses lest they stampede and make sure that no pregnant women cross my path. I wouldn't like to be held responsible for the consequences.

No, I am *not* taking on unnecessarily. I've seen the looks I get on the street and in the stores. I've heard the whispers: "There goes Babs Barclay. She *writes*." (Uttered in the same deliciously scandalized tone once applied to prim old maids with a secret addiction to overdosing on Lydia Pinkham's elixir, cooking sherry, vanilla extract, and hair tonic.)

To the good folk of Bowman's Ridge, having a writer in their midst is rather like having a toothless, declawed cat in the chicken coop. The beastie may look harmless, logic may insist that in its present state sans fang and talon it is by *fiat* harmless, but the biddies still huddle together, clucking nervously, because...*You never know*.

I know what they are afraid of. It's the same fear that's always plagued small towns condemned to harbor the Pen Pushers from Planet Verbiage. It's the ultimate terror, which I first saw voiced by a secondary character in one of the *Anne of Green Gables* books when the heroine began to garner some small success as an author: *What if she puts us in one of her stories?* Not a direct quote, but it'll do.

Forget what you think you know about fame. Not everyone wants his or her allotted fifteen minutes' worth. The people of Bowman's Ridge want it even less than the people of Avonlea, or Peyton Place, or any other small town that had the poor judgment to allow writers to burrow into the wainscoting and nest for the winter. They are simple, honest, hardworking folk, who will take a simple, honest tire iron to your head if you so much as hint that you're going to make the outside world aware of their existence. (I think that the surplus of deferred fame-bites gets funneled into an offshore account where Donald Trump's ego, Michael Jackson's manhood, and Madonna's uterus spend much too much time making withdrawals. I *could* be wrong.)

It doesn't do me a lick of good to explain to my friends and neighbors that their fears are for naught. I write romances. *Historical* romances. Books with titles like *Druid's Desire* and *Millard Filmore, My Love*. The only way I'd write about anyone from Bowman's Ridge is if they were romantic, famous, and dead. Why, they could no more get into one of my books than a taxman into heaven, a linebacker into leotards, or a small, sharp sliver of unicorn horn into a nice big slice of Greta Marie Bowman's apple pie.

"Ow!"

It was a snoozy afternoon in mid-November and I was seated at the counter in the coffee shop when it happened. The coffee shop in Bowman's Ridge is the nexus for all manner of social interaction, from personal to political. I'm afraid my Transient heart doesn't get all revved up over the Planning and Zoning Commission's latest bureaucratic brouhahaha or the Women's Club's plans for yet another authentic Colonial weekend to honor the memory of our own Captain James Resurrection Bowman (1717-1778). I go there because the coffee is good but the apple pie is downright fabulous.

Or so I thought, until I found the figurative needle in the Northern Spies.

Carefully I put three fingers into my mouth and drew out the thing that had stung me, tongue and palate. I pulled it between my lips to clean off any adhering fragments of cooked apple and flaky crust. I have no idea why I went to the trouble. Would it make any difference to my throbbing mouth if I got the barb clean before seeing what it was?

I might as well have saved myself the effort and simply spit it out. Even clean and wiped dry on a paper napkin, it was nothing I could put a name to. About as long as the first joint of my little finger and one-quarter as wide, it caught the light from the coffee shop overheads and shimmered like the inside of an abalone shell.

"Something wrong, dear?" Muriel's shadow fell over the object of my attention.

Muriel and her husband Hal own and run the Bowman's Ridge coffee shop. I like to think that they belong to some mystic fraternal order of interior decorators — the Harmonic Knights of the Cosmic Balance, Fabric Swatch and Chowder Society — for the way they keep the place

charming without being cloying. Anyone who's dallied in small town Vermont knows how easy it is for an eatery to sink into the La Brea Cute Pits. Either the management heaps on the *prêt-à-porter* antiques, or wallows in frills and dimity, or worst of all, beats it with the Quaint stick until it catches a case of Terminal Rusticity from the knotty-pine paneling and dies.

Hal and Muriel just serve good food, never patch the vinyl counter stools with duct tape, adorn the place suitably for holidays, and periodically change the basic decor according to the grand, universal imperative of We Felt Like It. Oh! And they never shop at *Everything Guernseys*, thanks be to God, Jesus, Ben and Jerry.

Muriel has never treated me like a Transient and she sees to it that all the waitresses know how I take my coffee (black, two sugars) without my having to tell them every time. She even awarded me the supreme accolade, posting a *Happy Birthday, Babs* message on the whiteboard where they display the daily Specials. This privilege is as good as telling the world that I might not be a Bowman's Ridge Native, but I was one of the Transients they could take out of the attic on visiting days to show the neighbors. I like Muriel a lot.

So of course I lied to her. "Nuh-uh," I said, hastily clapping my hand over the extracted sliver. "Nothing's wrong, not a thing, great pie."

Muriel gave me a searching look, but all she said was, "Yes, Greta Marie said she's gotten some superior apples this season." Then one of the waitresses came up to tell her she was wanted in the kitchen and she was gone.

Left to myself once more, I uncovered the sliver and picked it up delicately between thumb and forefinger. It twinkled with all the hues of prism-shattered light, but it was made of no substance I could name. The man on the stool next to me cast a curious glance at it, but promptly went back to reading his newspaper. People in this town don't pry. Why bother, when every scrap of local news scoots around faster than a ferret on amphetamines? Sooner or later, everyone knows everything about everyone else.

Well, I thought, *it's very attractive, whatever it is. I'll bring it home; maybe Rachel can make something out of it.* Rachel is my teenaged daughter. She has discovered the Meaning of Life, which is to make

jewelry out of any object you find lying around the house, yard, or municipal dump, and pierce another part of your body to hang it from. At least this object was pretty, and I always say that a good soak in Clorox will clean anything, up to and including Original Sin.

I was so fascinated by the way the light played off my little bit of found art that I didn't notice Muriel's return until I heard her say, "Uh-huh. Thought so."

Caught in the act, I tried to cover up my sorry attempt at willful misdirection by dropping the sliver onto the open pages of the magazine I'd brought into the coffee shop with me and slamming the glossy cover shut on it. Slapping my hand over the bare-chested male model on the cover, I gave Muriel a sickly smile. "Dropped a contact," I said. "I don't want it to fall on the floor."

No dice. You can't fake out a woman who can tell good tuna salad from bad at fifty paces. "Honey, who are you trying to protect?" she said. "Greta Marie? You don't even know her."

That was true. Greta Marie Bowman belonged to the third and smallest segment of Bowman's Ridge society: Eccentrics. As my dear mother would say, an eccentric is what you call a lunatic who's got money. Mom was speaking from the jaded, materialistic perspective of big city life, however. In places like Bowman's Ridge, we realize that money doesn't excuse abnormal behavior. You don't have to be rich and crazy to be classed as an eccentric; you can be poor and crazy, so long as you're also the scion of one of the town's oldest families. Or in Greta Marie Bowman's case, the scionette.

Yes, she was the descendant of *that* Bowman. And yes, she was living in what the Victorians referred to as genteel poverty. Whatever mite of income she derived from her ancestors' surviving investments needs must be eked out by the sale of apple pies to the coffee shop. This was one of those cold, hard facts that everyone knew and no one mentioned. A Mafia don brought up to follow the steel-jacketed code of silence, *omerta*, is a harebrained blabbermouth next to a resident of Bowman's Ridge who's got something *not* to say.

"Look, it's nothing," I said. "I may not know her, but I certainly don't want to get her in —"

"Trouble?" Muriel finished for me. She sighed. "Babs, you want to

know the meaning of the word? That thing you just found in your pie, what do you think would've happened if someone else had found it?"

"Not much. Everyone around here *knows* Greta Marie and no one would say anything that would — "

"Think that goes for the Summer People?"

Na-na-na-naaaaaah. Cue the sinister chords on the pipe organ. The only critters lower on the Bowman's Ridge food chain than Transients are Summer People. I don't know why the Natives despise them so. They are the single best thing to happen to the local economy since maple-leaf-shaped anything. They swarm up here every June, July and August, with a recurring infection come leaf-peeping time, and pay top dollar to stay in spare rooms that would otherwise be mold sanctuaries. They attend church bazaars and rummage sales, fighting to the death to buy the nameless tin and wicker doohickeys that the Natives clean out of Aunt Hattie's attic. (Aunt Hattie could never tell what the hell that bug-ugly *objet d'awful* was either.) And of course if you've got any piece of house-trash, no matter how old, no matter how dilapidated, all you have to do is stencil a pig or a sunflower or a black-and-white cow on it and it's outahere, courtesy of the Summer People.

On the other hand, serve them a slice of pie that's packing a concealed shiv and they'll bring the Board of Health down on your head faster than you can sell them a busted butter churn.

"I see what you mean," I said. "But the season's over, the Summer People are all gone, and — "

"Skiers," Muriel reminded me. "Snowmobilers."

"Oh." I'd forgotten that, like weasels, when winter came the Summer People changed their coats and returned to our little town in swarms.

"It really would be a kindness to tell her." Muriel patted my hand in a motherly way. "Won't you please?"

"Ummmm. Why don't you?"

"Oh, I couldn't!" She laid her hands to her bosom. "She'd just simply fold up and die if I did. She doesn't take criticism too well, poor child." Only Muriel would refer to a spinster pushing fifty-five as *poor child*, bless her. "She'd stop baking pies for us altogether. She needs the money, though she'd never admit it. What would become of her then? It'd be plain awful."

In my heart I agreed with Muriel, though more out of my love for the pies than any concern for the pie-maker's welfare. "But if she doesn't take criticism well, how could I say — ?" I began.

Muriel pish-tushed me like a champion. "But it's *different* if it comes from you, Babs."

I didn't need to ask why. Wasn't it obvious? I was a Transient. My cautionary words concerning unidentified opalescent objects in the pastry wouldn't shame Greta Marie the way a Native's would. In fact, if I were to go to Greta Marie's place and accuse her of using the fat of unborn goats for piecrust shortening, she could live it down.

So I went.

Greta Marie lived out on the Old Toll Road. This was a stretch of highway so narrow, frost-heaved and godforsaken that the fact that someone had once collected real American money from travelers to allow them the privilege of breaking their axles in the ruts and potholes was a testimony to Yankee ingenuity, to say nothing of Yankee gall. There was hardly enough room for two cars to pass, unless one climbed up onto the shoulder at a forty-five degree angle, bumping over the gnarled roots of pine trees flanking the way. Luckily, the Old Toll Road had gone from being a throughway leading to Montpelier to a dead end leading to nowhere when the bridge over Bowman's Gorge collapsed in 1957. The town decided it would be a waste of money to rebuild it, since by then everyone took the State highway anyway, and that pretty much put an end to the two-way traffic problem.

That is, it did unless you happened to be heading *up* the road at the same time that Greta Marie Bowman was headed *down* it. She drove an old Rambler the color of mud with a crumpled fender and enough dings in the sides to make it look like the only car on the road suffering from cellulite. Wonderful to relate, she could actually get that bundle of battered tin up to considerable speeds, even over the humps and hollows of the Old Toll Road.

Wonderful to relate if you're safely out of the way, terrifying to tell if you're driving the car that's right in her path. Like a deer caught in the headlights, I spied the glitter of Greta Marie's Coke-bottle glasses and I froze. My hands spasmed tight to the steering wheel, my foot refused to move from the accelerator, and the only thing I could think was: *Dear*

Lord, if I die, what the hell body part will Rachel pierce to commemorate the funeral?

I felt like a complete idiot when Greta Marie brought her vehicle to a ladylike stop with room to spare and nary the smallest squeal of brakes to be heard. She peered over the steering wheel like a marmot testing the first sniff of spring air, then dropped from sight behind the dashboard. One hefty car door swung wide and she was walking toward me, all smiles. I lowered the window to greet her and was nearly bowled into the next county by her preferred scent, Eau de Mothballs, but in the name of preserving the honor of all Transients, I managed to dig up a smile of my own and paste it to my face.

"You're that writer-person!" was how Greta Marie Bowman chose to say hello.

"Um, yes, I am."

"Oh, I knew you'd come! Really I did!" She clapped her hands together with girlish glee.

"You did?" This was news to me. I wasn't sure whether it was good news. In her oversized, out-at-elbows black cardigan, with her steel gray hair anchored to the top of her head with at least three pairs of knitting needles, Greta Marie Bowman put me in mind of a large, amiable spider.

"My gracious, and when I think that we almost missed each other entirely — !" She spoke in the chirpy, lockjawed accents of a young Katharine Hepburn. "Now you just follow me up to the house and we'll talk."

And then, as God is my witness, she gave me a roguish wink, went back to her car, and backed up *at speed* all the way to the ancestral Bowman property, which lay a good quarter mile or more up the Old Toll Road.

From what I had gathered in my quarter century of Bowman's Ridge residence, the Bowmans had always been farmers, but they made a better living selling off the land than tilling it. The hard soil of their property let a diligent man grow him a bumper crop of rocks, though only if he was willing to work for it.

The last male Bowman to inhabit the place had been Greta Marie's grandfather, dead lo these many years. By the time he was under his native soil, he'd sold most of it. The only exceptions were the ancestral apple

orchard, a swampy meadow beyond that, and the homestead plot. This latter supported a meager vegetable garden, a dilapidated chicken coop and poultry yard, the half of the old barn that was still standing, and the Bowman house proper. All of these flashed before my eyes as Greta Marie hauled me out of my car and into the front parlor where she assaulted me with tea.

"Now the important family papers are mostly safe in the attic," she said, pouring out some oolong strong enough to strip paint from metal. "I can let you have those today, but the best sources are Caroline Elspeth's notebooks, and they're over in Brattleboro at Cousin Victoria's house. She said she was going to do something with them, but everyone knows how far that got. Vicky never finished anything in her entire life except her husbands."

I took a sip of tea, set the cup aside, and stammered, "I — I beg your pardon?"

Greta Marie slapped a wrinkled hand over her mouth and, as I hope for glory, tittered like a chipmunk. "Oh mercy, there I go again. I forgot: You're not from around here. You wouldn't know about Vicky." And with that, she proceeded to bring me up to speed on Cousin Victoria Bowman Randall Smith Chasen, her antecedents and her heirs. It was a lengthy recitation that left me knowing more about the Bowman family and any related Native families — which is to say everyone in town — than I'd ever wanted or needed to know.

When she was done, I gazed down at my now-frigid cuppa and murmured, "That was...very interesting, Miss Bowman, but I don't see — "

" — how you can use all that for your book? Well, of course you can't use all of it," Greta Marie reassured me. "After all, I wouldn't be very bright if I gave away *everything*. I simply must reserve some of it for my own book as well. I'm sure you won't begrudge me that much? Mine won't be nearly as fascinating as yours, but then you've had so much more *exerience*, you have *connections*, and as Daddy always used to say, when you've got connections, who needs talent?" Another giggle, this one ending in a snort. "All I want to write about is the branch of the family that settled near Brattleboro, old Zerusha Bowman's boys and that Martin woman — you know, she swore she came from Boston, but everyone here just knew she was from *New York*." Pronounced *Sodom*.

It was then that the diaphanous phantom of Understanding tiptoed up and tapped me gently on the cranium with an iron mallet. To this day I couldn't tell you whether my subsequent spate of blather was more of an apology for not having come to use the generations of Bowmans past as raw material for my next book, or an explanation for why I had come.

"Oh," said Greta Marie, regarding the shining sliver I held out to her in my cupped hand. "I see." If she were at all disappointed, she bore it well and swallowed it whole. "That certainly was careless of me. Thank you so much for bringing it to my attention." She stood up from behind the tea things, which I assumed was my cue to scurry back into the Transient woodwork, duty done.

As it happened, I was wrong. No sooner had I risen to my feet, stammering some social pleasantries about having to go home now, I'd left the children on the stove, but Greta Marie raised one briary brow and inquired, "Then you'd prefer to come back another time to see the unicorns?"

Three minutes later, to the tick, I was outside the Bowman house with Greta Marie, leaning my elbows on the top of a drunken split-rail fence that marked the boundaries of the meadow. And there, prancing and pawing the spongy ground and bounding hither and yon in matchless beauty at the slightest provocation, were the unicorns. There were three of them, all a luminous white so pure as to be almost ice-blue, with flossy manes the color of smoke glimpsed by moonlight. Even without the time-honored single horn in the middle of the forehead, it would be impossible to confuse these entrancing beasts with the most thistledown-footed thoroughbred.

Which was a good thing, because...

"Their *horns*," I gasped. "Where are their *horns*?" I leaned farther over the fence, staring at the three dancing shapes in the meadow. "All they've got are these...*lumps*."

"Lumps?" Greta Marie shaded her eyes, as if that gesture could hope to counteract a truly heroic case of myopia. She sighed. "Oh dear. It's happened again. Wait here." She left me teetering on the gateway to Wonderland as she trudged off to a nearby toolshed, to return with a small, bright hacksaw in hand. Setting two fingers to her lips, she blew a piercing whistle.

The unicorns heard and the effect was galvanic. They paused in their frolic, heads up, ears pricked forward, a pose of frozen loveliness so exquisite that it hurt my heart to see it. Then they broke from a standstill to a gallop, three clouds of lightning racing across the meadow. For an instant I was afraid that they meant to charge right through the fence — God knows, it didn't look strong enough to halt a stampede of bunnyrabbits — but I needn't have worried. Dainty cloven hooves planted themselves hard and decidedly in the earth just a handspan from the fence, bright garnet eyes twinkling with amusement. I could have sworn that the critters were laughing at me.

Just so I wouldn't make that mistake in future, the largest of the three curled his lips back from a double row of nastily pointed teeth and *did* laugh at me. It was a sound birthed at the junction of a horse's whinny, a stag's belled challenge, and a diva's scorn. He did it loudly and at length, giving me more than enough time to study him.

His eyes were, as I've mentioned, a deep, gem-like crimson, very large, highly intelligent, and possessed of an almost human capacity for malice. And yes, there in the place where tradition dictates the horn must be, there sprouted a pearly lump. Small as it was, I could see that it wasn't to grow into the sleek pool-cue object some folks fancied, nor was it the twisty narwhal tusk others preferred their unicorns to sport. It was multi-sided, multi-edged, and the edges thereof fuzzy with the added menace of minute, vicious serrations, almost barbs. At full growth it would be deadly, and not an easy death either. Just looking at it made my skin go cold.

The unicorn cocked his head at me as if to say, *Seen enough, rube? Take a picture; it lasts longer.* Then he swung his muzzle away to plant a long, snuffly kiss on Greta Marie's withered jowl.

"There's a good boy, there's a fine fellow." Greta Marie stroked the slab of silky white cheek. "Now just hold still, this won't hurt a bit." Placing one hand on the unicorn's nose, she used the other to ply the hacksaw. The steel blade bit into the base of the resurgent horn, which made a frightful screeching as it was severed. The unicorn submitted to the operation with that air of gallant indifference popularized by the better class of 18th century highwaymen about to swing at Tyburn Tree. Greta Marie worked quickly. There was a dull *plop* as the horn-nub hit the dirt.

"There," said Greta Marie. She fluffed up a little fur to cover the newly raw spot on the unicorn's forehead and announced, "Next!"

I watched with a combination of fascination and revulsion as she proceeded to treat the two remaining miracles as if they were parlor cats getting their claws clipped. When the third shining stub fell to earth, she sighed with satisfaction, then shouted, "Shoo!" Spooked like a flock of buff Orpingtons, the unicorns took off for the far end of the meadow, the place where boggy grassland melted into a small patch of wildwood. They flickered under the shadows of the leafless branches, then turned to fog and were gone from sight.

"Well, we won't be seeing any more of them today," Greta Marie declared, stooping to gather the fallen nubbins. Still dumbfounded, I followed her back into the house where I watched her set the horn-nubs on a butcher's block cutting board and whack them to flinders with a cleaver. Using the flat of the blade, she scraped the resulting pile of iridescent toothpicks into an old stoneware crock marked *Garlic*.

"You...*save* them?" I asked. She gave me a look that as good as accused me of Wastefulness, chief among the Seven Deadly Sins of Transients.

"I use them," she replied.

"Er, how?" Visions of an alchemist's lab hidden in the old Bowman root cellar taunted me. I pictured Greta Marie huddled over her bubbling alembics, a stuffed corkindrill suspended above her head while she added a pinch of unicorn's horn to her latest batch of hellbroth.

"Why, I simply — Never mind, it would be easier to show you. Do you have a minute to spare? Several?" And with that she opened a cabinet and donned not the wizard's pointed hat, but the cook's muslin apron. Still without waiting for my yea or nay, she proceeded to favor me with the privilege of witnessing the process by which Greta Marie Bowman took plain apples, sugar, spice, and pastry, and confectioned them into the food of the gods.

When at last she dropped the top crust into place over the mounded fruit filling and fluted the edges, she turned to me and commanded, "Watch." From the *Garlic* cannister she took one splinter of unicorn's horn and with five deft jabs opened steam slits in the piecrust. "There. *That's* how I use them."

She cleaned off the sliver and dropped it into a jelly jar on the windowsill above her sink before popping the pie into the oven. "You can get about three perfect pies out of each one," she informed me. "After that they crumble into dust — the horns, not the pies. But the dust makes a wonderful scouring powder — gets out every stain you can think of and a few you can't — so I don't feel too bad about getting so little use out of them. And the critters are always growing new ones."

She removed her apron and folded it over the back of a kitchen chair. "I can't imagine *where* my mind was when I let that splinter you found slip into the pie. Oh wait, yes I can. That must've been the day I was in such a terrible hurry, and it seemed like every time I turned around, the phone was ringing itself off the hook. No wonder I got all muddled, between trying to get the Congregational Church bazaar organized and all that baking and *baking* — ! Ed Franklin had come by that week to bring me three extra bushels of Cortlands — he's had a bumper crop this year. I know he meant it to be kind, but I had my own apples to use and I knew that if I didn't get his Cortlands baked up they were going to go bad on me. Not that it matters anymore — I could use rotten apples in my pies and the horn would turn them to nectar, just nectar — but old habits do die hard. My mother raised me to bake a decent apple pie and I can't do any less." She finally paused for breath, plucked the kettle from the stove, and beamed at me. "More tea?"

I left her house about an hour later, burdened with the apple pie, the Bowman family papers, the promise to at least *try* to write *Jim Bowman's Woman*, and a vow of silence: Under no circumstances was I to tell a single, living soul about the presence of the unicorns on the Bowman property. As Greta Marie herself told me, the only reason she went to all the trouble of sawing off the creatures' telltale horns was so that unexpected callers who caught sight of them would assume they were only horses.

"But if you want to keep them a secret, why did you show them to me?" I'd asked.

"Oh, you're different," Greta Marie reassured me. "It doesn't matter if you know about them." Right. *Sic semper Transientis*, or however you'd say *Transients Don't Count* in Latin.

I went back to the coffee shop to make my Mission Accomplished

report to Muriel. I was promptly rewarded with a cup of coffee, a glazed donut, and the question: "So which one of the unicorns is your favorite?"

"Nurk!" I replied, mouth stuffed with a chunk of donut that bid fair to wedge itself in my throat if I let shock get the better of me. I chewed vigorously, swallowed, then leaned across the counter like a comic strip anarchist to whisper, "You know?"

Muriel chuckled. "Bless your heart, Babs, *everyone* knows. Only no one *says* anything. You know, I can't say we were at all surprised when the first one showed up, oh, maybe ten, twelve years ago. It was the middle of winter, long about Christmas time, when we have the Pinecone Handcrafts Fair at the firehouse; you know. Greta Marie's car was in the shop so Sally Norton and her boy Ron offered to drive up the Old Toll Road to fetch Greta Marie there and back. They pulled up into her yard and that's when they saw her and it. She'd already sawed the creature's horn clean off, but even so, even in the nighttime with no more light to see by than the spill off that old kerosene lantern she leaves burning near the gatepost, there was no way a sighted person could ever believe that was a horse! Of course Sally and Ron never said *that* to Greta Marie."

"Of course not," I mumbled.

"And if you ask me, it was *that* natural when the other two joined the first one. Frankly I'm kind of puzzled that there aren't *more* than three haunting the Bowman place. Maybe three unicorns are all that's left in this part of the state, and it's no wonder they've all come to roost with Greta Marie."

"It is?"

"Of course it is! Lord love you, Babs, don't tell me that an educated city woman like you doesn't know what it takes to attract a unicorn?"

City woman? Twenty-five years ago, maybe. Which translates into Bowman's Ridge-ese as *yesterday*.

And I *did* know what it takes to attract a unicorn.

"Oh, come on, Muriel!" I protested. "Don't you stand there and try to tell me that Greta Marie is the one and only virgin in this whole town!"

Muriel's eyes twinkled. "All right, I won't. Wouldn't be true, anyhow. But how long does your average virgin last, these days? Sixteen, seventeen years at most, and that's like an eyeblink of time to a unicorn. They're immortal, you know," she confided. "I may belong to a different genera-

tion, but I'm not blind or stupid. We all know what goes on with our young people, especially since the government's been making them go to that regional high school at Miller's Falls." Pronounced Sodom again, and no matter that the government redistricting edict was handed down in 1953, when even Vegas was wholesome.

"You see," Muriel went on, "it's not just that Greta Marie's a virgin, it's that she's so damn good at it. Pardon my French."

"So everyone knows and no one objects?" I asked.

"Why should they? She's a respectable member of this town and if she wants to raise mythical beasts on her own property that's her own business...as long as she keeps them under proper control at all times and they don't pose any threat to the community."

"That's comforting to know," I said with a merry chuckle that didn't become me at all. (The glazed donut had gone straight to my brain and the sugar rush convinced me I could try my hand at wit.) "You see, I found this darling little dragon's egg on my lawn last Easter and I was worried that if I hatched it, people would talk."

Muriel stared at me blankly for the count of three, then said, "You writers," and took off as if the kitchen had caught fire.

I was left alone at the counter, Dorothy Parker *manqué*, with nothing to hide my blushes save my coffee cup and my copy of *With Pen and Passion*. The cup being empty, I chose to go to ground behind the cover of the very magazine between whose pages I had dropped the original sliver of unicorn horn.

This might be the best place to mention that *With Pen and Passion* is one of the many fine periodicals to which I subscribe as part of my career as a romance writer. *WiPP*, as we in the trade call it, is a slick monthly whose chief allure is the book review column. That is to say, whose chief allure *had been* the book review column.

As long as we're opening narrative parentheses, let the worst now be revealed: His name was Wellcome Fisher and he was my own damned fault.

I'd met him at a romance writers' convention in New York City about ten years ago. He was an aspiring author, scion of a proud old New England family, almost attractive in a tweedier-than-thou kind of way, well-bred, well-read, pumped full of the Wisdom of the Ancients at the ivy-covered

tit of Mother Princeton, raring to put pen to word processor and make his genius known to the fortunate masses. There was just one little thing standing in the way of his brilliant career: He couldn't write for toffee.

Of course I didn't know this from the start. He seemed like such a nice man. (Many successful romance writers *are* male, you know. They all write under female pseudonyms unless they're Fabio or churning out mainstream lunchblowers like *The Bridges of Madison County*.) He introduced himself, said how much he admired my work, and asked if he could buy me a drink.

He bought me several. It was all strictly professional. We had a lovely, long chat about the importance of research in writing historical romance. He told me that he was always extremely punctilious about his research, and he didn't understand why the one book he had managed to sell was doing so poorly.

"I don't merely say 'Gwendolyn stood before her mirror wearing a velvet gown,'" he told me. "I put in details." And he gave me an autographed copy of *Lady Gwendolyn's Gallant* so that I could see for myself.

I did, once I got it home. Wellcome had done his research, all right. His book gave me a painfully thorough education about the provenance of food, clothing, furniture, music, and transportation in Regency England. It told me who ate what and how much of it, who slept where and for how long, and who used which finger to excavate whose nostril. In fact, it told me everything except an entertaining story.

We had exchanged telephone numbers, so when the inevitable happened and he called to ask my opinion of his work, I found myself in a bit of a quandary. I don't like to lie, I just do it for a living. However, neither do I like to tell someone that his book, his effort, his hardbound baby, stinks like a gopher's armpit. For one thing, it's cruel. For another, it's dangerous. Alas for the world, we now no longer know which eager young writer will take constructive criticism as an invitation to assassination.

So I hedged. I evaded all direct questions about the book itself. I chattered and gobbled and blithered about a plethora of other subjects in an attempt to divert Wellcome Fisher from the original aim of his call.

Unfortunately, one of the subjects on which I blithered was the fact that *WiPP* was looking for a few good book reviewers. Wellcome heard,

applied, and the rest was history, much like the *Hindenberg*, the *Titanic*, and the Reagan Years. From the moment he got the job, he announced that he would now devote his fair young life to the aesthetic improvement of the Romance genre. It was a noble aim, in theory.

In practice he appeared to have slapped on a pair of six-shooters and gone out gunning for authors whose work had committed the unpardonable sin of having a better track record than his. (Which is to say, everybody and Cain's dog.) He implemented this game plan by reducing any book he reviewed to a pitiful clutch of *execrables*, *derivatives*, *pathetics*, and *don't bothers*.

Any book, including mine. Though we remained on social terms, Wellcome was quick to inform me that he would not let our acquaintanceship sway his critical judgment, and he proved this by a scathing review of *Raleigh, Truly* (Sixth in my ever-popular Elizabethan series). Furthermore, said he, I ought to be grateful. He was only being honest.

I, in turn, informed him that I thought his critical judgment consisted entirely of bloodyminded revenge on writers who, unlike himself, had managed to create something people wanted to read. What was more, he might call it honesty, but anyone with half a glass eye could see that he had more axes to grind than Paul Bunyan. The rest of our interview is clouded in my mind, but I believe that a condescending remark on his part, a bowl of extra-chunky salsa on mine, and a dry-cleaning bill for a man's suit figure in it somewhere.

If only the chunks had been larger! Wellcome sustained no permanent injuries from the episode. He wrote on, his pen unblunted and his bile unmitigated, an Alexander Woollcott wannabe in full flower (Deadly nightshade, since you asked). As a matter of fact, the very issue of *WiPP* into which I had slipped the odd finding from my apple pie likewise contained Wellcome's review of my latest novel, *Beloved Babylonian*. I'd been waiting to read it until I was sure we were all out of razors.

Why did I let his reviews do this to me? Even though I knew he trashed everyone's books equally, even though I knew he wrote solely out of envy and spleen, his words still had the power to wound, or at least to give me the stray twinge in the coccyx. When he wrote romances, he bludgeoned whole chapters to death with a stack of research books as high as it was dry, but when he wrote reviews, he was the undefeated master of a myriad

barbed bitcheries. We writers claim to be indifferent to any voice save that of our Muse, but we writers lie.

Living among the stoic folk of Bowman's Ridge for twenty-five years had not helped to harden my skin or toughen my ego. However, it had taught me the simple, rock-ribbed lesson most hardscrabble folk learn early: Get the worst out of the way first. I decided to read Wellcome's review, swallow his abuse, question his masculinity and curse his name, all so that I'd be able to enjoy the rest of the magazine in peace afterward.

Fans of Barbara Barclay's stunning Elizabethan series will rejoice to learn that the justly praised First Lady of the Torrid Quill is now also the Queen of Sizzling Cuneiform. *Beloved Babylonian* takes you on a breathless, breakneck, no-holds-barred roller coaster ride of ecstasy through the reign of that hottest of historic hunks, Hammurabi himself. No wonder they called it the Fertile Crescent! If you want to read the best and the brightest that this field has to offer, then I urge you to run, don't walk, to your local prosemonger and buy your copy now! If these books don't fly off the shelves, they'll set them on fire.

"Babs? Babs, honey?" Muriel shook me gently by the shoulder. "You've just been sitting here for the past ten minutes staring off at nothing. You all right?"

"Uhhhh, sure," I said, and clutching my copy of *WiPP* to my heaving bosom, I fled. I didn't stop fleeing until I was safe at home, up in my office, with the door shut and the cat banished. I didn't like doing the latter. Like many another writer's cat, my gray tabby Gorbuduc has aided my career immeasurably by critiquing all my manuscripts with her asshole. It was the only thing that she and Wellcome Fisher ever had in common.

Until now. I read the other reviews. Each was as glowing and brimming with bouquets as the love-feast he'd laid out for *Beloved Babylonian*. I put down the magazine, unable to move, unable to speak, and more than a little inclined to scream. I'm a flexible sort, but to accept the fact that Wellcome Fisher would ever write an all-rave review column required my mind to acquire the elasticity of a boneless belly-dancer.

Wellcome's abandonment of acrimony was the apocalyptic harbinger that St. John missed, the Unlisted Number of the Beast. I don't like it when my whole world pitches itself tush over titties without a word of warning. It frightens me.

"What's happened to that man?" I mused aloud. "Is he sick? Is he insane? He couldn't have gone nice on us spontaneously. What could put *him* in a charitable mood? Oh God. Oh no. Oh please don't let it be that he's actually gone and sold another of his books! Even vanity presses couldn't be that unprincipled. No, it can't be that. It's too horrible to contemplate. He must be up to something else, and it's something big and nasty or he wouldn't be trying to put us off guard with a few kind words."

I re-read his review column and my hands went damp and cold. "Jesus, to counterbalance something like this it's going to have to be something really big, and really, *really* nasty." I shuddered to think what that something might be. Wellcome Fisher had little talent, but like the Spanish Inquisition's primo torturer he was a man of bottomless invention, mostly vindictive. This was not going to be pretty.

Existential fear is one thing, dinner's another. Every writer is allowed only so much time to wallow in the great trough of emotional resonance, with all-day privileges extended solely to those of us foresighted enough to be born male and to have obtained that handy labor-saving device, a wife. This was not the case for me, and while my husband is a dear who "helps with the housework" (Translation: "Where do we keep the butter? Where's the frying pan? Are you *sure* we have a potato peeler?") he was out of town on yet another of his ever-recurring business trips. (Alas, the darling of my heart is in Sales, and I am left forlorn. Not all single parents are divorced or unmarried, you know.) A glance at my desk clock told me that time and frozen fish-sticks wait for no man and so, using that wonderful human survival skill called *If I stop thinking about it, it will go away*, I purposely put Wellcome Fisher's aberrant reviews from my mind and hied myself downstairs to the kitchen.

The plates were on the table, Grace was said, and Rachel had just informed me that squash was Politically Incorrect (and gross), when the telephone rang. I scowled — first at the phone, then at Rachel — and announced, "If that's one of your friends, they know very well that it's the

dinner hour and I'm going to tell them they can just call back later." This said, I picked up the receiver.

"What is the meaning of this flagrant violation of my Constitutionally guaranteed freedom of expression, you pandering troll?" a voice boomed in my ear.

"Oh. Hello, Wellcome," I replied.

"You can tell your friend to call back later, too, Mom!" Rachel called out joyously. (When did any daughter of mine develop such a provoking smirk, I'd like to know?)

"It's all right, dear, it's no friend of mine; it's a critic," I replied, not bothering to cover the mouthpiece.

"Eeeuuwww." Rachel made a face even more contorted by revulsion than when I'd served her squash. Truly I had raised her well.

I returned my attention to my caller: "All right, Fisher, what are you yapping about?"

"You know damned well that to which I refer, Barbara Barclay, you sorry hack. I call your attention to the December issue of *With Pen and Passion*, my review column in particular."

"I've seen it," I told him. "Really, Wellcome, you were much too kind. Much."

I could almost see the apoplectic color rising in his face when he spluttered out, "You're damned well right I was much too kind! If I weren't so fornicating kind you'd be getting this call from my lawyer!"

"Of course I would," I replied serenely. At last I had my answer: He was insane. Multiple personality disorder at the very least. He must've written those reviews under the brief influence of the Good Wellcome Fisher, and now that Evil Wellcome had reasserted sovereignty, he wanted to shift the blame.

"Don't condescend to me, jade. And don't try to convince me that this is none of your doing. I know exactly what I wrote about that hideous mound of toxic verbiage you call *Beloved Babylonian*, and this review is not it! Nor are any of the others printed therewith the work of my pen. Oh, you'll pay for this effrontery, Barbara. *I'accuse!*"

It had been ages since Rachel was a bratty two-year-old, but it was remarkable how quickly I recovered the patient, measured tone of voice necessary for dealing with tantrums. "Wellcome, dear, before I put in a

long-distance call to the wacko-wagon down in your neck of the woods, would you mind telling me how you think I managed to change your precious spew — I mean, reviews?"

"Ha! As if you didn't know. Thanks to a barbarous mob of so-called readers whose vulgar tastes are directly responsible for the imminent fall of Western Civilization, you are an author who is — who is not without — " Something was sticking in his craw, but he made the effort and horked up: " — *who is not without some influence in the publishing world.*"

Ah, so he'd built his palace of paranoia on that little patch of quicksand. I was a Name in the field of Romance, therefore I could prevail upon the publishers of *WiPP* to delete Wellcome's real reviews and insert some of my own creation. Sure, I could. Now that I saw whither his twisted thoughts tended, I didn't know whether to laugh out loud or pity the naiveté that believed genre authors could influence anything except their editors' drinking problems.

"Look, Wellcome, I'm telling you that I didn't have anything to do with — " I began. Then a stray thought struck me. "Could you hold the line a sec?"

Without waiting for his answer, I put down the phone and fetched my copy of *WiPP*, opening it to the reviews. Something was nagging at me, worrying the corners of my mind. It was a scrap of legendary lore that I'd acquired years ago, back in college, when *Lord of the Rings* held all the secrets of the Universe and my holiest desire was to get an elf greased up, buck naked, and ready to rock 'n' roll. But when I wasn't dreaming of more unorthodox uses for pointed ears, I read a lot, everything from trilogies to treatises on myth and folklore. After all, when you just *know* you're going to be the Queen of Elfland (or at least the Love-Slave) you don't want to make the gaffe of addressing a troll as if he were a dwarf, or calling a boggart a bogle.

From out of the mists of those damned embarrassing memories, a graceful white creature stepped. It printed the grass of an emerald meadow with its cloven hooves and knelt beside a tainted fountain. It touched the poisoned waters once with its horn. Once was all it took. The waters bubbled up bright and clean, free of all contamination.

Carefully I ran my fingers along the inner spine of the magazine until they encountered the faint trace of stickiness I had been half expecting. No

matter how carefully you lick a batter spoon clean, some residual goo will cling to it until it's properly washed, and no matter how painstaking you are about getting all the apple filling off a sliver of unicorn's horn before you drop it between the pages of your magazine...

"Wellcome," I said wearily, picking up the phone again, "I confess. I did it. I used my amazing professional influence to force the publishers of *With Pen and Passion* to drop your original reviews and substitute mine, but it wasn't supposed to happen until the April issue, as a prank. I'll be happy to contact them ASAP with a full retraction. Good enough? Good boy. Good-bye."

I didn't wait for him to answer. I hung up the phone but it took a while before I could unclench my hand from the receiver. I stood there for some time, silently cursing the incredible-but-true reason behind the metamorphosis Wellcome's vitriolic rants had undergone along with the promise of confidentiality I'd made to Greta Marie.

As if you needed to be sworn to secrecy! I thought. *Outside of Bowman's Ridge, who the hell would believe you if you did talk about the unicorns?*

I finally got a grip on my emotions and sat down to dinner. I was pleased to see that Rachel had cleaned her plate while I'd been on the phone with Wellcome. It wasn't until she'd scooted upstairs to do her homework that I noticed a double heap of mashed squash covering my fish-sticks. I molded a tiny little voodoo doll of Wellcome Fisher out of the surplus squash, drove a fish-stick through its heart, and enjoyed my dinner in peace.

Peace is precious because, like chocolate, it never lasts long enough to suit me. Wellcome Fisher took the next bus to Montpelier, rented a car, and showed up at my house the following afternoon, without benefit of invitation. I would have set the dogs on him, but we don't have any dogs and Gorbuduc wasn't in the mood.

His first words to me when he stepped out of the car were, "I don't believe you, you shameless Machiavellian magsman!"

"Fine, thanks, and you?" I muttered. I have nothing against reality save the fact that there is no way — short of small arms fire, a Doberman, or a dimensional trapdoor — that you can hang up on a face-to-face encounter with a petty-minded twit like Wellcome.

"I have here in my hand certain documents — " he began, wagging a clutch of papers at me as he advanced like grim Pedantry " — that prove beyond the shadow of a doubt that your confession is as full of holes as your plots. Behold the galleys of those same reviews which you *claim* to have removed and replaced! They are precisely identical to the versions published."

I frowned. "So what's the problem? Of course they'd be identical. That's how galleys work, you know. Who gave you those?"

"They were given to me by the editor of *With Pen and Passion* approximately three months ago, as is the usual procedure for production of all of my columns. According to my wont, I Faxed back the typographical errors and kept the galleys themselves for my library. The *problem*, as you so infelicitously put it — " (Here a needle-toothed leer spread itself over Wellcome's face, a grimace for a dyspeptic possum to envy.) "The *problem* is that when I filed these galleys they were *my* reviews as originally written, but when I took them out for inspection yesterday, after our delightful conversation, they had somehow become *yours*."

(The unicorn bends his head over the polluted stream and touches it once with his horn. The magical powers of purification act immediately, but they can't distinguish one drop of water from another. Unicorns don't do partial cures or managed care. It's all or nothing.)

"Tell me the truth, Barbara," Wellcome was saying. "Tell me how you managed to accomplish this, short of hiring cat-burglars to infiltrate my domicile."

"I can't tell you."

"Then perhaps you can tell my attorney."

"You wouldn't believe me and neither would he."

"Faugh!" (The man actually said *Faugh!*)

"It's a long story and parts of it are pretty far-fetched."

"You're not scaring me, Barbara; I've read your Elizabethan series."

I held onto my temper by counting the bristly ginger hairs springing from Wellcome's ears, then said, "If it were up to me, I'd tell you straight out, devil take the hindmost. It's not. It involves someone else, a respected and respectable person who lives in this town. I'd like to keep living in this town too, so I'm not going to tell you dick without this other person's permission, and I don't care if you sue my ass off."

"And if this person gives consent?" Wellcome's pudgy lips drew themselves into a *moue* of anticipation.

"Then I'll tell you everything."

"Hmph. Very well. Let us be on our way." He pivoted on one battered loafer and headed for his rental car. When I neglected to come bounding after, he paused and in tones of the highest snittery commanded, "Well, get *in*. You say the person you must consult likewise lives in this dainty suburb of Ultima Thule? Fine. You shall play Virgil to my Dante and bring about a meeting without delay."

I decided that some battles aren't worth fighting: Lie down with dogs, get up with fleas, and that includes getting down to word-wrestling with this pedigreed s.o.b. I got into the car and directed him back to the center of town where I led him straight into the coffee shop.

"And what do we call *this* fallen temple of Epicurus?" Wellcome inquired loudly as we walked through the door. It was past the breakfast rush and before the lunchtime crowd, a few minutes short of eleven, for which I gave thanks. The only witnesses to my mortification were the three waitresses, two young mothers preoccupied with keeping their toddlers from shoving toast into each others' ears, and Muriel.

"We don't need to call it anything; it's the town coffee shop," I gritted.

"Ah. How delightfully self-referential. And what unspeakable offense against human society have I committed that entails even temporary incarceration here as my punishment?"

"That's what I've always admired about you, Wellcome," I said. "Your simple yet elegant style. I brought you here because this is where we've got the best chance of meeting the person we're after. Now can I buy you a cup of coffee?"

"I'm assuming a decent cappuccino is out of the question. I'll settle for a clean cup." He sniffed, wrinkled up his nose dramatically, and made a great business out of whisking off the immaculate surface of one of the counter stools with his handkerchief. Muriel saw him do this, her expression unreadable. I performed the usual pantomime of those forced to keep company with chowderheads: Sickly smile, shrug of shoulders, silent mouthing of It's-not-my-fault. Muriel pressed her lips together and went into the kitchen. While I writhed, our waitress came over and

Wellcome asked her what was the ptomaine *du jour* in a voice so carrying that even the young mothers took note of us.

Oh, for a cloak of invisibility! or even just an Acme anvil to fall from the ceiling and squoosh Wellcome into clod-butter. I placed my order, though I had precious little appetite for anything except a certain critic's head on a platter.

It was while Wellcome was ingratiating himself with the waitress by staring at her breasts that Greta Marie arrived. My sense of timing had been impeccable: She always made her delivery at around eleven o'clock. She backed in through the door, an apple pie balanced on either hand, a look of intense concentration on her face. I hailed her by name and she startled like a duchess dry-gulched by a whoopee cushion, then recovered and smiled.

It took me a while before I realized that she wasn't smiling at me.

"You're Wellcome Fisher!" she gasped, rushing forward, still bearing pies. I couldn't say whether her bosom was heaving with the strain of unbridled passion, but the front of her tatty old Navy pea coat was imitating a bellows pretty well. "The flyleaf photo just doesn't do you justice. Oh my! Babs never told me that you were one of her writer-friends. This is such an honor! I simply adored *Lady Gwendolyn's Gallant*! So rich! So detailed! So — "

Forty minutes later, I walked myself back home. If Wellcome noticed me leave, he made no demur, and as for Greta Marie, she'd scarcely noticed my presence to begin with. I left the two of them seated at the counter, gazing deeply into each other's eyes, Greta Marie telling Wellcome how wonderful his book was and Wellcome telling Greta Marie that she was so very, very right.

That was the last I heard of Wellcome Fisher for weeks thereafter. *WiPP* made no inquiry into the unique eruption of sweetness and light in Wellcome's reviews, and the man himself seemed to have dropped the matter. He also seemed to have become a regular fixture in Bowman's Ridge, motoring up whenever he had the time, just to be with Greta Marie. Townsfolk saw them walking hand-in-hand down Main Street, a public display of affection that was the Bowman's Ridge equivalent of indulging in the love that dare not bleat its name on the church lawn. Eyebrows lifted, tongues clicked, and whoever coined the phrase "No fool like an old

fool" must've been raking in the residuals for all the times the good Natives muttered those very words under their collective breath. If Greta Marie overheard, she didn't care. She was happy.

I suppose I should've been happy too. I suppose that as a Romance writer I should've sat back and enjoyed such a picturebook-perfect ending, cue violins and soft-focus fadeout. Unfortunately, just because I write the stuff doesn't mean I believe it. My outlook on life would be so much serener if I did. It's impossible to enjoy a front row seat for Happily Ever After when you're waiting for the other shoe to drop, and if I knew Wellcome, it was going to be a brogan.

So I waited, and Thanksgiving came and went. I waited, and the Christmas decorations went up all over town. I waited, and Bobo Riley stuffed two pillows down the front of his old red union suit, slapped on a cotton batting beard, and passed out candy canes to all the kids who came into his hardware store with their folks. But as for Greta Marie and Wellcome — ? Nothing. Not even a rumor of trouble in paradise. It was just too good to be true.

Muriel agreed. "I don't know what's gotten into the girl," she said to me. (In this town you're a girl until you become the charge of your husband or the undertaker.) "She's all atwitter, can't find her head using both hands and a roadmap, most days, and irresponsible — ? I don't like to say how many days she's skipped bringing in the pies, and when she does, the quality's fallen off something terrible. When I think how good those pies used to be, I could just weep. Not that I'd ever mention it to her. Poor child would die. On the other hand, she really ought to know. I don't suppose you'd consider — ?"

Which is how I came to be driving up the Old Toll Road to the Bowman place in the snow. I'd taken the precaution of calling ahead. No way was I going to risk my neck jouncing over ice-filled ruts for nothing. Greta Marie told me how much she'd be looking forward to my visit, and then:

"Dear Babs,

So sorry I missed you. Got a call from the postmaster that there's a registered letter for me down town from my Wellcome. Let's make it another time.

Very truly yours,
Miss Greta Marie Bowman"

I tore the note off the front door and stuffed it in my pocket, then went stomping back to the car, thinking bloody red thoughts. Just as my gloved hand touched the handle, I heard a loud trumpeting sound, the singular, strange, fascinating cry of the unicorn. I looked back at the house and saw one come walking around the corner in stately beauty.

It was the largest of the three, the one who'd given me that contemptuous stare the first time I saw the critters. He'd changed; his horn was back, grown almost to full length. It shone with its own pale phosphorescence, a flickering blue-green flame. The beast held his head high and seemed to be in the best of spirits. Maybe animals can't smile, as we humans understand the grimace, but they do have their ways of letting the world know they're happy, and this was definitely one happy unicorn.

Was, that is, until he saw it was only me. I could mark the exact moment when recognition struck him right where the horn grew. His feathery tail, once flaunted high as a battle-flag, now drooped with disappointment. His whole demeanor seemed to say, *I was expecting someone else*. A spark of anger kindled from dashed hopes turned his eyes a dangerous scarlet. How dare I be anyone but the woman he was waiting for? He lowered that long, razor-edged horn in a manner that made my heart do a drumroll of dread. I'd seen how fast he could run and I knew that there was no chance of my getting inside the car before he reached me. I wondered whether it was going to hurt when he skewered me for the heinous crime of not being Greta Marie.

Then his head bent even lower, so low that the tip of his horn came within an inch of the ground. A dull gray film obscured its glorious fire. Sorrow had conquered anger. He let out a little whicker of misery that wrung my heart with pity.

I went up to him and threw my arms around his neck, crooning words of comfort. Yes, I talked to him as if he were a despondent collie pup. Yes, I voluntarily brought myself within easy stabbing distance of the horn. Yes, I'm an idiot, I admit it, it says so on my driver's license. If you want proof-positive of my stupidity then consider the fact that I went into writing because I wanted a high-paying, glamorous job where everyone respected me and internecine mudslinging just wasn't the Done Thing. But I couldn't turn my back on the poor creature.

"There, there," I said, running my hands through his flossy mane.

"She'll be back, you'll see. It's just that she's a little soppy now. Love makes you temporarily brain-dead."

The unicorn looked me in the eye, his gaze eloquent. *Don't sugar-coat it, my lady*, he seemed to say. *You and I both know what love leads to. She may be back, but she won't be the same, and where are we going to find another virgin at this time of year? Those Christmas parties are hell on maidenheads.*

"You mean that Greta Marie and Wellcome have — ?" Curse my imagination! The very thought of Wellcome *al fresco* and taking care of business was enough to purge a catfish. My conscious mind immediately tacked up wall-to-wall signs reading *Don't Go There, Girlfriend. Don't Buy the Ticket, Don't Even Ask to See the Full-Color Brochures.*

The unicorn flared his nostrils, scorning the whole hideous idea. Ah, true, true: Would he still be hanging around the property if Greta Marie had done the dire deed with Wellcome already? But to judge by his hangdog expression, he figured it was only a matter of time.

"Look, I'm sorry, but what can I do about it?" I told him. "Greta Marie's happy. I realize she's been neglecting you, but —"

The unicorn snorted again and tossed his head, casting off my paltry attempts at consolation. I watched as he picked his way across the farmyard, heading toward the straggle of apple trees. I thought I glimpsed the images of his two companions in the distance, under the spindly shadow of the branches, but that might have been a trick of light on snow.

I cupped my hands to my mouth. "Don't give up!" I called. "Please don't just walk away! Even if she and Wellcome Fisher *do* get nasty, it's never going to last. Greta Marie's not stupid and she's not desperate: one day she'll see him for the ego-leech he is, unless he slaps her in the face with it first. That's when she'll really need you. She's been good to you for God knows how many years; you owe it to her to stick around. *Nice unicorns. Good unicorns. Sit! Stay!*"

I was babbling, but it got their attention. Three shimmery streaks of marine light lifted beneath the barren orchard boughs, three pairs of glowing garnet eyes winked at me once before vanishing.

I drove back to town alone.

Greta Marie was in the coffee shop, seated on one of the stools at the counter nearest the big display window up front, reading her registered

letter over a steaming cup of Muriel's best brew. It was a wonder she could make out the words for all the stars in her eyes. When she saw me come in, she broke from covert in a whirl of bliss.

"Babs, it's so wonderful! I do hope you forgive me for not being at home when you called, but it was such a good thing I came to town and got this letter. Darling Wellcome! I know he meant to give me a few days' notice, but when one is as significant a figure in the field of *belles lettres* as he, sometimes it's simply impossible to take time for personal matters until the demands of one's career have been met."

Belles lettres? Wellcome? The only demand ever attached to his career was "Please, please, *please*, don't write another book!" As I seated myself on the stool beside hers, I did a rapid mental translation of Greta Marie's words, allowing for drift, wind resistance, drag, and converting from the Stupid-in-Love scale.

"There's something vitally important in there and he didn't bother mailing it until the last minute!" I presumed, nodding at the letter. Muriel brought me my own cup of coffee, glanced at Greta Marie, then looked at me and raised her eyebrows in a manner that said *Lost Cause*.

"Oh, I don't mind," Greta Marie chirped, pressing the unfolded sheets of spiral notebook paper to her heart. Wellcome might waste words, but never stationery. "He says he's coming up today, and that I'm to meet him here because there's no sense in him driving all the way out to my place and then all the way back into town to the *travel agent*." She pronounced those last two words as if they'd been *Holy Grail*, fraught and freighted with a deeper meaning than was given mere mortals like me to know.

"Planning a little trip, hm?" I asked, striving to keep it casual.

"A very *special* sort of trip, Babs dear." She blushed. "I do think he's coming up to ask me...to ask me if I would consent to become...if I would consent to become his —"

"*There* you are!" Wellcome Fisher burst into the coffee shop with the élan of a juggernaut. He shouldered his way between us, nearly shoving me off my stool without so much as a word of greeting. Usually it is a fair treat to be ignored by Wellcome Fisher, but not when it means you've been relegated to the role of superfluous stage-dressing. I was miffed. I got up and moved, taking my cup with me.

Wellcome slithered onto the stool I had vacated. He looked Greta

Marie up and down, his gaze severe and judgmental. "You're *not* prepared," he accused.

"Prepared, dear?" It was sickening to see the way Greta Marie went into mouse-mode at the sound of her master's voice. "But — but I'm *here*. You did say to meet you *here*, didn't y — ?"

"Ye gods, and was that *all* I said?"

Greta Marie cringed, but she summoned up the gumption to reply, "Well...yes. That and the part about going to the travel agent." She extended the letter for his inspection and added, "See, darling?"

He rolled his eyes, playing the martyr so broadly that I wondered whether he had a pack of stick-on stigmata hidden in the pocket of his anorak. "Merciful powers above, you're a supposedly intelligent wench: Do I have to spell out *everything* for you, chapter and verse? Are you *that* literal-minded? Are you incapable of basic *inference*?" He paused, striking a toplofty pose, apparently waiting for the applause of the multitude.

Now mind you, the hour of Wellcome's self-styled Calvary was lunchtime and the coffee shop was packed to the gussets with the usual Natives, all of whom knew and respected Greta Marie Bowman. It was out of this selfsame respect that they went deaf, dumb and blind by common consent. They understood that she had fallen in with this acerbic yahoo of her own free will, they realized that she had brought all her sufferings down upon her own head voluntarily, they were firm in the belief that she should have known better, but damned if they were going to underwrite her humiliation, deserved or not. No one present reacted to Wellcome's words with so much as a glance in his general direction. In fact, as far as the good folk of Bowman's Ridge were concerned, Wellcome wasn't even there. They didn't just ignore him, they nullified him.

Gadfly that he was, Wellcome did not take kindly to being overlooked. The Natives' lack of cooperation irked him. He took a deep breath and brought his fist down on the countertop just as he bellowed, "You peruse, but you do not *read*. Have you no grasp of *subtext*?"

Poor Greta Marie. I could see her lips begin to tremble, her eyes to shine with tears that didn't spring from joy. "I'm — I'm sorry, dear," she said, her voice all quavery. "I — I suppose you mean I ought to be prepared for — for our trip, yes?"

Wellcome slapped his brow and let his celluloid smile glide across the

room. "*Finally!*" he informed the audience. They gave no sign that he had spoken. "At the very least, I expected you to be packed."

"Packed? But — but how could I? I wouldn't know what to bring. We haven't even discussed where we'll be going."

His shoulders sagged. Now he was both martyr and victim. "I thought you *listened* to me," he complained, wounded to the marrow. "Haven't I said time and time again how the winter weather affects my artistic spirit? Haven't I spoken of my very deep, very basic *need* to follow the sun?"

"You *did* mention something about visiting your aunt in Tampa every year, but — "

"Well, my dear Auntie Clarice has just written to say that *she* is going off on a holiday cruise this coming week, and that *we* may have the use of the condo in her absence, with her blessing." He beamed at her as if he'd just laid the crown jewels of Zanzibar at her feet.

Greta Marie turned pale. "Oh no," she said, hands fluttering before her face. "This *coming* week? Oh no, it's much too soon. I couldn't possibly make all the arrangements. Reverend Fenster is too taken up with the Christmas season, and we Bowmans have always been married from the Congregational church. Besides, there's simply nowhere we could book a large enough hall for the reception, let alone arrange for refreshments, and what about the blood test and the license and my gown and — "

Wellcome's brows rose and came together until he was glaring at Greta Marie from beneath the shelter of a hairy circumflex. "*What* the devil are you jawing about?" he demanded. "Since when does one need a blood test to go to Tampa?"

"Oh," said Greta Marie softly. She folded her hands above her bosom and repeated, "Oh." Her head bowed like a flower on a broken stalk. "I thought you meant we were going to be — " she began, then sank into silence.

"What? To be what?" Wellcome was mystified. For one fleeting moment he seemed rapt by words that were not his own as he attempted to solve this present conundrum. "Do you imply — ? That marriage twaddle you were spouting about your ancestors and the First Congregational Church — ? Surely you weren't *serious*?" Without waiting for her reply, he dismissed the very possibility with a brief wave of his hand. "No,

no, you couldn't have been; something else must be nibbling your liver. Spit it out, woman! I don't indulge in telepathy."

Greta Marie set her hands firmly on the edge of the counter. I swear that I could see the ranks of Bowmans long gone form up in ghostly phalanx behind her and then, one by one, add their ectoplasmic mite to the stiffening of her backbone. By degrees she sat up taller, straighter, prouder, looked Wellcome in the eye and coldly said, "I thought you were a *gentleman*."

There could be no greater condemnation uttered by a woman of Greta Marie's age and station. For all his failings, Wellcome was not slow on the uptake; the penny dropped, the "marriage twaddle" that he had dismissed as ridiculous returned to leer at him, nose to nose. I saw the flickering play of emotions over his countenance: shock, comprehension, a smidgen of shame, and then the urgent realization that if he didn't act fast, he was in peril of losing face before the one earthly creature he loved above all others.

If you think the creature in question was Greta Marie, you haven't been paying attention.

Frost crackled at the corners of his mouth as he smiled thinly and said, "Well. Here's a surprise. Don't tell me that you still cherish orange blossom dreams at your age?"

Greta Marie jerked her head back as if she'd been slapped. His words jarred her to the core, that much was plain to see, but the old blood bred hardy souls. She drew her mouth into a tight little line and refused to give him the satisfaction of a reply.

This sat ill with Wellcome, who would have preferred more concrete evidence that his words had hit the mark. "And I thought we understood each other," he said, reloading his figurative blowpipe with a freshly venomed dart. "What a sorry disappointment you are. I expected more of you. I believed that you were different, that you were a woman of perception, a woman of spirit, one to whom the petty constraints and empty rituals of society mean nothing so long as she can serve Art."

That did it. That was my limit. "Art my *ass*," I blurted out. "You just want to get *laid*."

Wellcome curled his lip at me. "Enter the white knight," he drawled. "And what concern of yours is this? Barbara Barclay, champion of

Romance! I should think you'd want to encourage your friend to seize the golden opportunity I'm offering her. Do you honestly believe she'll get many more like it on this side of the grave? *If* she ever got any before."

"I don't have to sit here and listen to this!" Greta Marie stood up and started for the door, but Wellcome blocked her escape.

"I urge you to reconsider," he counseled her. "I've always been passably fond of you, you know, especially your good sense. Certainly a woman like you, wise enough to perceive the rich aesthetic contributions of my work to world literature, must also see that I have only your best interests at heart in proposing *cette petite affaire*. Tampa is lovely at this time of year. Do you *want* to end your days as a hollow husk, a topshelf virgin whose life will be forever incomplete without so much as the memory of a man's attentions? I'll spare you that horrible fate, but you're going to have to be a good girl and — "

Greta Marie just gave him a look; a look that plugged his chatter snugger than jamming a badger in a bunghole; a disinterested, calculating look such as a farmer might give a stubborn tree stump, mentally debating which was the best crack into which to jam the dynamite.

"My ancestor, Captain James Resurrection Bowman, received a grant of land in this town as a reward for his heroism in the Revolutionary War," she said. "A friend of his received a similar grant, except his was much smaller and located on Manhattan Island. He offered to swap, Captain James chose to decline. In retrospect it was a stupid choice, but it was his own. All my life I have followed Captain James' example; I have always made my own choices. If I remain a virgin until I marry, it will not be for lack of such...generous offers as yours, but because that is my decision to make and no one else's."

"Talk about stupid choices," Wellcome snarled.

Still calm and collected, Greta Marie gave him one short, sharp, effective slap across the face, and it wasn't a figurative one either, no sirree. And with the echoes of flesh-to-flesh impact still hanging on the air she said, "The only stupid choice I made was loving you."

The incredible happened: The denizens of the coffee shop, to a man, rose to their feet and gave that slap a standing ovation. Bobo Riley from the hardware store was even heard to let out an exultant Yankee whoop that would have put a Rebel yell to shame.

That should have been Wellcome's cue to leave, making as gracious an exit as he might hope for in the circumstances. Alas, Wellcome had never been a man to read the signs or take the hint. If you told him his writing clunked like a freight train off the rails, he took this to mean that it had the power of a runaway freight instead.

He seized Greta Marie's hands. "So you do love me," he exclaimed triumphantly. "Ah, I see your little scheme: You're playing hard to get. You've read far too many of the shoddier sort of Romance novels, those dreadful bodice-rippers — " (Here he looked meaningfully in my direction.) " — and you want a rough wooing. So be it!"

He was more athletic than his nascent paunch and pasty skin might lead you to believe, fully capable of sweeping a grown woman of Greta Marie's size off her feet and out the door before any of us could react. She shrieked in shock, not fear, but she didn't struggle as he made off with her. Maybe she thought she'd already made enough of a scene in the coffee shop to last Bowman's Ridge well into the next century.

I was the first to address the situation. "Hey! Aren't we going to do something?" I demanded of my fellow townsmen.

No one answered. Most of them went back to eating lunch. Bobo Riley looked as if he wanted to take action, but something was holding him back.

"Babs..." Muriel jerked her head, indicating I was to sit back down at the counter. Dumbly I obeyed in time to hear her whisper, "It's not our place to interfere in other folks' domestic quarrels."

"This is an abduction, not a family spat," I hissed. "If I know Wellcome, he won't stop until he's stuffed Greta Marie into his rental car and *driven* her all the way to Tampa! And then what? She hasn't got enough cash to come back on her own hook, and would she ever dream of calling anyone up here to send her the busfare home?"

Muriel didn't say a word. We both knew the answer: Greta Marie would sooner become a beachcomber or — the horror! — give Wellcome his wicked way with her before she'd ask a fellow Native to lend her some money. On the other hand, her fellow Natives would sooner allow a thrice-cursed outlander like Wellcome Fisher to make off with the last living Bowman than they'd ever dream of interfering directly in someone else's personal matters.

"Well, I don't care what the rest of you do, *I'm* not going to put up with this!" I announced and started for the door. A large, work-hardened hand darted in front of me to hold it open. I looked up into Bobo Riley's kind blue eyes.

"Mind if I walk with you down street a bit, Mrs. Barclay?" he asked. "I just happen to be going your way."

Within two minutes I found myself transformed into the most popular woman in Bowman's Ridge. Simply everyone in the coffee shop was suddenly seized with the simultaneous urge to pay their checks and join me for a little stroll down Main Street. Even Hal abandoned his kitchen and Muriel her place behind the counter, leaving the waitresses and a few stragglers behind to hold down the fort. We weren't going to deliberately *interfere* in anything, perish forbid. We were just going to exercise our Constitutional right to take, well, a constitutional.

We followed the faint sound of Greta Marie's fists beating a muffled tattoo on Wellcome's chest. They hadn't gotten far. Wellcome had parked his rental about a block away, down by the old war memorial on the green. Our itinerant Town Meeting caught up with him as he was trying to dig out the car keys without letting go of his prize.

When he saw us coming his eyes went wide as a constipated owl's. He forgot all about the "rough wooing" underway and dropped Greta Marie smack on the town green, then took to his heels. At first I thought that he was running away in fear for his life, that he intended to beat feet all the way to Montpelier, but it turned out that I underestimated him. He fled only as far as the war memorial — a truncated obelisk, its sides inscribed with the names of the Bowman's Ridge men who'd died in both World Wars, Korea, and Viet Nam, its flat top crowned with an urn that the Women's Club filled with flowers on appropriate occasions. Spry as a springtime cockroach, he clambered up the monument and perched there, holding onto the lip of the empty urn.

"A lynch mob," he sneered down at us from his perch. "How typical of the rustic mind. Haven't you forgotten something? Pitchforks? Torches? You crackerbarrel cretins, how dare you harass me? A plague on your pitiful frog-fart of a town! And you — !"

His glittering eyes zeroed in on Greta Marie. Bobo Riley had fallen behind the rest of us in order to help the lady up and now squired her on

his arm. "This is all your fault, you squalid excuse for a hicktown Hypatia! You pathetic pricktease, I'll wager you fancy yourself quite the bargain basement Mata Hari, don't you? *Don't you?*"

"Oh!" Greta Marie covered her face with her hands and shuddered. Wellcome's sharp tongue had finally drawn blood. She was crying, and in public, too! Bobo Riley folded his big arms protectively around her and glowered up at the treed critic, growling threats that failed to stem Wellcome's spate of vengeful poison.

"Don't cry, darling," Wellcome crooned sarcastically. "There's nothing wrong with you that a good upcountry rogering wouldn't cure. So sad that you'll never get it now. Thank God I came to my senses in time. You contemptible dirtfarm Delilah, how a man of my breeding could have ever been mad enough even to *consider* the sensual enrichment of your dusty, backshelf, remaindered life — !"

Greta Marie threw her head back and howled her misery to the skies.

They were on him in the time it takes to blink. We never saw them come; they were simply there, all three of them, eyes hollyberry bright, horns blazing in the thin winter sunlight. The largest of the three, the one I'd comforted earlier that same day, was the first to reach him. It set its forefeet on the pediment of the war memorial, paused for an instant to look Wellcome in the eye, then jabbed him straight through the center of the chest with its horn. He fell to the snow-covered green and lay there unmoving.

The other two unicorns took it in turns to sniff the body and to snort their disdain. They did not depart as abruptly as they had arrived. The three of them turned as one and trotted up Main Street, tails swishing, in the direction of the town library. One of them paused to munch on a swag of Christmas greenery decking the front of the florist's. No one made the slightest move to stay them, and Greta Marie, still weeping in Bobo Riley's arms, never once tried to call them back.

Wellcome Fisher was dead. We had no illusions of anyone being able to survive a direct thrust to the heart with something as sharp and pointed and long as a unicorn's horn, but we only *thought* we had all the answers until Hal bent over the body and exclaimed, "Hey! There's no hole."

Everyone swarmed around. Hal was right: There was no hole. Not a

puncture, not a piercing, not a scratch. No blood stained the snow. There wasn't even the teensiest rip in Wellcome's clothing. The crowd buzzed.

I stood apart. I knew what had happened, but darned if I was going to tell my neighbors. They already thought I was weird enough, and if I started explaining about the rules that govern unicorns — !

The unicorn is not a monstrous beast; it doesn't kill for sport or spite, it lives to heal, not harm. It bears upon its brow a horn whose touch has the power to purge all poisons and make what is polluted sweet and wholesome once more. The unicorn hadn't been trying to kill Wellcome, merely to cure him. It had touched his heart with its magical horn, intending to remove only the taint of malice and envy, leaving behind all that was good and selfless and decent in the man. No one was more surprised than the unicorn by what actually happened.

Let's just put it this way: It was going to be one hell of an autopsy, one of the starring organs gone without an external clue to explain its vanishment. Oh well, the medical examiner would probably call it a coronary anyway, heart or no heart. Old Doc Barnett hates to make waves.

It took a goodly while to sort things out on the green. By the time Chief Dowd and the rest of the local authorities finished taking statements ("Dunno. He just sorta keeled over. Not a mark on him, see?") and viewing the body, it was getting dark. I looked around for Greta Marie. I figured she shouldn't try to drive herself home after all she'd been through today.

I'd been anticipated. When I found her, she told me that Bobo Riley had already offered to drive her home and she'd accepted. Despite the fact that several other Natives were within earshot, Bobo went on to say that he'd pick her up at her place come morning and take her back to town so she could recover her car next day. Then he asked her if she'd like to help him down at the hardware store by dressing up as Mrs. Claus and giving the kids candy. This was the Bowman's Ridge equivalent of him clasping her to his manly chest, raining kisses upon her upturned face, and telling her that he desired her above all women with a raw, unbridled passion that knew no bounds. I don't know if Greta Marie felt all the earth-heaving thrills and collywobbles I put into my books, but her eyes were shining with that special To Be Continued light.

I went home. Rachel was waiting for me by the front gate. Something

was clearly wrong. Instead of her usual air of carefully cultivated angst and ennui, she was bouncing like a Labrador puppy.


"Mom! Mom! This is so cool, you've got to see this! I don't think he belongs to anyone, and he is soooo gorgeous. I'll take care of him myself, I promise, and if there's some kind of problem with the zoning geeks I'll pay for his board out of my own allowance, honest. Can I keep him? Can I? Can I? Pleeeeeease?"

"Keep — ?"

The unicorn stepped out of the lengthening shadows, rested his heavy head on my daughter's shoulder, and — one Transient to another — grinned.

This story is respectfully dedicated to the memory of Clifton Webb.





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BOOKS TO LOOK FOR

CHARLES DE LINT

Legacies, by F. Paul Wilson,
Forge, 1998, \$24.95

WAY BACK IN 1984, F. Paul Wilson wrote a terrific supernatural thriller called *The Tomb*, featuring a character named Repairman Jack. Jack was a fascinating individual who lived outside the perimeters of regular society (in other words, he didn't exist on paper) and could "fix" problems that couldn't be handled through the regular channels of law enforcement agencies or the courts. Jump ahead fourteen years, and now Wilson has finally produced another Repairman Jack novel. (Though for completists I should add that Jack had a supporting role in *Nightworld* and appeared in a number of short stories since *The Tomb*.)

The big difference from that first novel is that in *Legacies* the supernatural element is non-existent. Jack's adventures this time

out center around the more mundane, though no less horrifying, themes of child abuse and children who are born with AIDS. It makes for an interesting connection to the fiction of NYC lawyer Andrew Vachss who uses the proceeds from his books to support his law firm, since his clients (infants and young children) can't afford to spring for a lawyer.

Most of Vachss's books have an ex-con named Burke as their principal character. Like Repairman Jack, Burke also doesn't exist on paper, but he lives much deeper in the belly of the city's underground. The novels are written in a very hardboiled style, playing out against a gritty backdrop of undesirables and the unwanted, with no supernatural elements whatsoever. I don't know if Vachss has ever read any of the Repairman Jack stories, but *The Tomb* certainly preceded his Burke novels.

In some ways Wilson's Repairman Jack is a kinder, gentler Burke.

He gets the job done, and he can be brutal when required, but one doesn't sense the constant edge of violence in his character. The language in Wilson's books is...not more literate, but certainly less clipped. It doesn't have the immediacy of the Burke novels, which could partly be Wilson's decision to write in the third person, as opposed to the first person narratives Vachss uses.

But I think it's simply different approaches to a somewhat similar idea. For one thing, Repairman Jack is given to introspection as to his place in the world, who he is, why he does what he does. Burke, as Vachss depicts him, is driven and less altruistic, unless a problem arises that will affect his family of choice.

One could spend a great deal of time comparing the two characters, and gain some fascinating insights behind the author's choices of character and storytelling, but that would only appeal to avid readers of both writers, and I think readers of this column will generally be more interested in how *Legacies* stands up to previous Repairman Jack outings.

On that front, they won't be disappointed.

The novel starts off with Jack's girlfriend Gina asking him to help

recover a truckload of Christmas presents that have been stolen from a hospital dedicated to children with AIDS. But soon the hospital's director, Dr. Alicia Clayton, comes to him with an odd request: she wants him to burn down her ancestral home. Doing some investigating on his own, Jack discovers that a number of different foreign elements are after a secret hidden in the house and will kill anyone who tries to help Dr. Clayton, while also scrupulously protecting Clayton's own life.

The resulting events make for a fast-paced and engrossing novel. And here's the other Vachss connection: like Vachss, Wilson makes his moral points, not by lecturing the reader, but by telling a good story in which the elements of child abuse and children with AIDS are expanded upon within the context of the plot.

What we have here is one of those rarities: a sequel that works, standing as strong as the original work.

Blue Light, by Walter Mosley, Little, Brown & Co., 1998, \$23.50

I'm somewhat amused by how when a mainstream publisher releases a genre work, they usually a) pretend it's not genre fiction (in

this case sf), and b) act like their author invented sliced bread. Not that it's the author's fault how he or she's being promoted, of course.

Some genre readers don't like it when a mainstream author appears to be invading our turf, but I have to admit to enjoying it, especially when it's someone as able as Walter Mosley, more widely known for his powerful mystery novels. The appeal to me is the naiveté one can see in the work, the sense that, for them, they *are* inventing the genre. They come with no excess baggage, as those of us writing in the field sometimes do, and yes, sometimes they are reinventing the wheel, but often they bring a freshness to what we've already worked to death.

Blue Light has the sense of a post-holocaust novel about it — think *Davy*, or some of Brin or Le Guin's work — but it's actually set in the near past, as many of Mosley's novels are. This time it's the Bay Area during the sixties, a perfect time for some of the odd characters with whom Mosley peoples the novel to make their way mostly unnoticed by the general populace.

The story starts with the appearance of the "blue light" of the title, a shower of darts of blue lights

that, when they enter living beings, accelerate their evolutionary potential. The first half or so of the book depicts some of the various people to be affected — not to mention a few coyotes, a dog named Max, and a giant redwood tree — and also explains how one of the men touched by the light turns, unlike the others, into the Gray Man, a creature bent on killing all living things.

The second half of the book takes place in the wilderness where a number of the "Blues" and their followers have taken refuge. This is the section that seems so much like a post-holocaust novel as the group sets up their community of Treaty. But with the approach of the Gray Man, the community changes its name to War, sends away all the residents except for the pure Blues, and prepares to confront their nemesis.

Much of this will feel familiar to sf readers. What makes Mosley's novel still worth reading for those of us in the genre is his fabulous prose, and the sensibilities he brings to his characters. The viewpoint character of Chance, a half-black, half-white man who is trying to commit suicide before he comes under the influence of the Blues, will stick in your head for a long time. He provides a gripping

counterpoint to the "perfection" of the Blues and becomes Mosley's voice for exploring questions of race and individual identity, as relevant in our own world as it is in this fictional one touched by a blue light.

Briefly:

The Flower in the Skull, by Kathleen Alcalá, Chronicle Books, 1998, \$22.95

Alcalá is fast becoming one of my favorite writers. Like her previous novel *Spirits of the Ordinary* (discussed a while back in this column), *The Flower in the Skull* is set along the Mexican/Arizona border and deals with three generations of Opata Indian women — ranging from the turn of the century to the present day. There is less of a magical presence in this volume and the story is heartbreaking in places, but the prose is even more gorgeous, and there is a richness to Alcalá's characterization and settings that makes me reread passages, simply to re-experience their resonance.

Eternal Lovecraft, edited by Jim Turner, Golden Gryphon, 1998, \$25.95

This will already be on any Lovecraft aficionado's "must buy"

list, but it's also a good place for those less familiar with Lovecraft's ideas and influence to see what the fuss is all about. It's a collection of Lovecraft-influenced short stories, utilizing some of the late author's concepts rather than slavishly imitating his style. From high-profile authors like Stephen King and Harlan Ellison to perhaps lesser known (though no less worthy) authors such as Fred Chappell, Nancy A. Collins and William Browning Spencer, there's something for everyone in here.

Editor Jim Turner claims this will be the last Lovecraft-themed anthology he'll edit, which seems a shame since the books he's brought us through Arkham House, and now his own imprint, Golden Gryphon, have always been of superior quality. If your local shop can't get it for you, you can order it from: Golden Gryphon Press, 364 West Country Lane, Collinsville, IL 62234. ☞

Material to be considered for review in this column should be sent to Charles de Lint, P.O. Box 9480, Ottawa, Ontario, Canada K1G 3V2.

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BOOKS

ELIZABETH HAND

Space and the American Imagination, by Howard E. McCurdy,
Smithsonian Institution Press,
\$29.95

"Love and Rockets"

THIS IS THE saddest story I have ever read.

I suppose I should offer a caveat here, since one or two readers might reasonably question the emotional impact of a scholarly work about U.S. public policy issues — even one as profusely illustrated as this, and so obviously intended for popular consumption. But I have had a lifelong and intensely tormented relationship with the American space program. This is something I thought everyone shared, until a year or so ago when I found myself in a hotel room weeping copiously over a documentary on Werner von Braun while my partner watched dry-eyed at the sight of the cancer-ridden

von Braun, the German space scientist frail and shaken past all recovery by the betrayals of the government agency he had helped create. Since then I've had numerous recovered memories of similar experiences, all involving documentary footage (and occasionally written accounts) of NASA's early years.

Cynics might call this yet another instance of misplaced Baby Boomer midlife nostalgia/angst, but in fact I never was very nostalgic about the last frontier. This was due, in large part, to what can most gently be termed an accident of employment, when for almost ten years beginning in 1977 I worked for the Smithsonian's National Air & Space Museum in Washington, DC. Disgruntled taxpayers often demand to know where all the GS-1s are within the vast machinery of American bureaucracy, and now it can be told: I was a GS-1.

Actually, I was an IS-1 (the I stood for Institution), and for several years my job involved wearing

a mustard-colored polyester uniform meant to evoke the authority and pomp of an airline pilot (in fact it was identical to the uniforms of Century 21 real estate agents), while "instructing" tourists on how to "fly" a genuine Link General Aviation Trainer, or GAT. I use the term "instruction" in its loosest sense. For twelve hours at a stretch, I sat in a small chair that moved dizzily around and around in circles while an endless progression of overweight, badly dressed, and extremely enthusiastic men, women, and children did as much damage as they could to a beautifully sophisticated piece of technology, a mockup of a Cessna 52 aircraft reduced to a Disneyland attraction.

It was not a job with a lot of growth potential. The exhibit was dismantled a few years later. Those IS-1s who had worked there were farmed out to other parts of NASM (with some happy futures: Geoff Chester is now an astronomer with the Jet Propulsion Lab, Bernie Gallagher an historian, Bill Doorley is at the Pittsburgh Planetarium, and Greg Bryant remains at NASM as an archivist). When I left the museum, just a week before the *Challenger* disaster, I had managed to rise to the lofty rank of IS-7. But I thought of the GATs while read-

ing *Space and the American Imagination*, because in many ways those poor overworked machines met the same fate as the space program. Initially embraced for their imaginative potential and entertainment value, they were discarded when their technical and imaginative limitations caught up with them, and when they failed to live up to the growing expectations of a public whose hunger for technological innovation far outstrips our ability to feed it.

Space and the American Imagination begins where any history of the space program must, in an examination of its iconic roots as a sort of rogue outgrowth of the popular vision of the American frontier. This is a tale that has been told before — sf critic John Clute has said that science fiction is the story of how the 20th century could be made to work (as opposed to the more nostalgic genre of fantasy, which implicitly states that our century was simply wrong) — and within this framework we can recognize in the tale of the American space program that story we tell ourselves as it grows darker outside, darker and colder and more dangerous. The most successful version of the story, of course, is Tom Wolfe's immensely popular

book *The Right Stuff* (1979), and the enthralling movie it inspired; more recent and similar ventures include the film *Apollo 13* and the TV documentary series *Space*.

But both *The Right Stuff* and *Apollo 13* (I haven't yet seen *Space*) buy into the frontier myth of the challenging vista that must be tamed and the lone helmsman who can conquer it. It's a patriarchal vision, of course, with the rough technical language softened for a general audience: for all its irony and explication of NASA's in-jokes, *The Right Stuff* is a love letter, and *Apollo 13* is a love letter from the front line. In *Space and the American Imagination*, Howard McCurdy doesn't give us the right stuff but the real stuff, the minutiae of policy debate and political razzing that brought the space program into being and seems destined to bury it. It's a meandering, sometimes confusingly organized book, but an important one. McCurdy's prose style is understated and occasionally drab, but free of annoying postmodern tics — you'll find no references to the "Spa[CE] Program" here — and for even a casual reader or sf fan, the book assembles a fascinating congeries of facts and fictions about trips to the moon, real or imagined.

From the start, McCurdy tells us, the American space program was shaped as much by the press as by Capitol Hill, with generous assistance from other media. In the late 19th century, newspapers were filled with accounts of thrilling expeditions to polar and wilderness regions, and with the advent of *Argosy* magazine in 1896 the pulp industry was born, subsidized in large part by readers' vicarious delight in the exploits of explorers like David Livingston and Roald Amundsen.

"The public desire to personally, and safely, experience the great expeditions helped create interest in travel and promote the family vacation, a trend promoters of the national park movement and their allies in the American railroad industry made effective use of. Whether the last great era of exploration had actually closed was of less importance than the dwindling supply of mysterious terrestrial lands in which to set entertaining tales."

Fortunately, extraterrestrial worlds were right around the corner, just waiting to be exploited. By

the turn of the century, Edward Everett Hale, Jules Verne, and H.G. Wells had all published popular works of what would come to be known as science fiction, and a Trip to the Moon ride was introduced at the 1901 Pan-American Exposition. A year later this spaceship ride reappeared at Coney Island, where millions of tourists were exposed to the notion that spaceflight was not only fun, but perhaps feasible. McCurdy posits that it was this particular, and peculiar, alliance of instincts — commercial, imaginative, and scientific — that made the space program possible.

In a way, what is most astonishing about the conquest of space is not that we had the technical know-how to *do* it, but that Jane and John Q. Public were ultimately convinced that it could in fact *be done*. McCurdy cites a 1949 Gallup poll in which Americans named those developments which would be in place by the year 2000. Eighty-eight percent believed in a cure for cancer; 63% thought we'd be riding around in atomic powered trains. But when presented with the notion that "men in rockets will be able to reach the moon within the next 50 years," only 15% agreed.

All this changed so fast it would

make your head spin — and by "all this" I mean the American public's perception of outside reality, something all cynical, independent, gun-toting free-thinkers love to believe is above manipulation by government, let alone commercial or industrial interests. In his 1985 political history of the Space Age, Walter McDougall names the magic triumvirate that made it all possible: a thriving economy, sophisticated technology, but above all what McDougall terms "culture, the realm of symbolism," and which McCurdy more succinctly calls imagination. McCurdy makes a persuasive argument for the impact that the media has had on influencing U.S. policy for well over a century. *Uncle Tom's Cabin* was instrumental in changing attitudes toward slavery. Thoreau, James Fenimore Cooper, and the painter Thomas Cole all created works that gave Americans a vision of their country as a wilderness to be revered and protected, and inadvertently contributed to the process of creating a system of national parks and forests. Upton Sinclair's *The Jungle*, a graphic depiction of laborers in Chicago's stockyards, reached a huge and appalled audience. Meat sales plummeted, less than six months after *The Jungle's* publica-

tion, Theodore Roosevelt created what would become the Food and Drug Administration. McCurdy also cites Ken Kesey's *One Flew over the Cuckoo's Nest* (1962) and its influence upon policies that led to the deinstitutionalism of the mentally ill. Kesey's counterculture classic does a good job of illustrating Walter McDougall's premise — it appeared during a period of strong economic growth, when medical advances in psychotropic drugs seemed to provide a magic bullet for schizophrenia and other illnesses.

Of course the reality of deinstitutionalization was more complicated and far more tragic. So, in its way, was the history of the space program. From the visionary writings and applied research of a relatively small number of men came an entire industry that really did change life on Earth. McCurdy is concise and quite eloquent on the pioneering scientific contributions of Konstantin Tsiolovskii, Willy Ley, Werner von Braun, Robert Goddard, and Herman Oberth, but he gives equal time to their not-so-silent partners in our Trip to the Moon — purveyors of pop culture like Chesley Bonestell, Arthur C. Clarke, Fritz Lang, Carl Sagan and the Great Oz Himself, Walt Disney.

From its inception, the space program often seems to have been equal parts Barnum razzmatazz and Me Decade opportunism. In a quote that still manages to raise the hair on one's spine, McCurdy cites R. C. Truax, then commander of the Navy Bureau of Aeronautics (one of NASA's precursors), in an address to the Hayden Planetarium's third symposium on space travel in 1954:

"Ultimately every thing we do is done simply because we want to."

Now, when he said that Truax probably *wasn't* thinking of Aleister Crowley's dictum, "Do what thou wilt shall be the whole of the law," but he might as well have been. The subsequent history of the space program is checkered enough to accommodate any number of theories of otherworldly intervention, including the most recent rash of crackpot theories spun out of programs like the *X-Files*. Every age and society gets the Art it deserves, and the same seems to apply to Science. The great schism in the early space program was between those who wanted Real Science — satellites, robotic probes, a serious long-range project aimed at establishing space

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stations and operations platforms — and those who wanted Real Guys in Space. As everyone knows, the Real Guys won out, for a while: NASA officials rightly sensed that Americans would be more supportive of a program with a human face. But, as McCurdy notes of events in the 1980s, "Eisenhower's alternative space program, with its emphasis upon robotics, eventually came to dominate military space policy in the United States."

What's interesting and strange about all this is how radically our perceptions of science and humanity have changed. Perhaps because

of that very emphasis upon controlling the image of "the calm, brave astronauts," we no longer trust the human face. The independent militia movement's hatred of government is directed at people — computers can't be stopped with guns the way bureaucrats can be. And given the choice between a GPS navigational device in a rental car, or a Rand McNally map, how many of us opt for the map? McCurdy makes a broad but apt judgment when he states that "It is difficult for humans to respect strict moral codes when those doctrines are based on patently false cos-

mologies." The promise of space was presented as a dream on the verge of coming true. When it didn't, when we all woke up to the big post-Vietnam, post-Watergate, post-Reagan hangover, it was bye-bye Buck Rogers.

This was ironic, to say the least. For all the "aura of competence" that NASA cultivated in the 1960s and early 1970s, when the Space Program operated at full throttle, "In fact, NASA conducted a less accident prone flight program in the 1980s than it had during the 1960s when the sense of competence arose.... As history shows, however, facts do not always play the dominant role in the creation of images about the U.S. space program."

In *The Right Stuff*, Tom Wolfe did an exemplary job of showing how the Mercury and Apollo astronauts became "architects of our image." Howard McCurdy demonstrates that NASA's sometimes uncanny ability to tailor its programs to popular taste and expectations — abetted by the news and entertainment media — may well have served as its undoing. In a remarkable national display of cognitive dissonance, people began to believe in the practicality of everyday space flight, interplanetary

voyages, alien contacts, FTL drive — despite all evidence to the contrary. McCurdy quotes John Mauldin's contention that

"When a theme as common as travel to the stars is taken for granted in a large but fictional literature, the public tends to assume that the concept will become certainty, even that particular methods will be developed fairly soon."

Alas, the clock is ticking down to 2001. The dilithium crystals have yet to appear, and we all know Major Tom's a junkie. In the popular mind, the dream of space buccaneers won out over the more feasible goals of space science, but Wolfe's dictum "No bucks, no Buck Rogers" has sadly been reduced to "Fuck Buck Rogers." In his book's most chilling summing-up, McCurdy quotes Paul Theroux on "the real future" —

"Forget rocket-ships, super-technology, moving sidewalks and all the rubbishy hope in science fiction. No one will ever go to Mars and live. A religion has evolved from the belief that we have a future in outer space; but it is a half-baked religion — it is a little

like Mormonism or the Cargo Cult. Our future is this mildly poisoned Earth and its smoky air.... There will be no star wars or galactic empires and no more money to waste on the loony nationalism in space programs."

To many people, I know, the disappointments and achievements of NASA don't amount to a hill of

beans, especially when measured up against population pressure, global warming, and the difficulty of finding a parking space; but Cargo Cult or not, I always took all that space stuff seriously. I still do. Given the choice between gazing into Theroux's gutter or McCurdy's finely tuned optic pointed at the stars, I choose the latter. Houston may have a problem, but we're working on it. ♣



"Look at this teenie-weenie chip, Schmidt! Who would have thought that it could replace a great, big guy like you!"

Ian Watson's recent novels include Oracle and Hard Questions and he's currently at work on a new one entitled Mockymen. His new story for us was partly inspired by a visit to Finland for a mid-winter science fiction convention. Like many of Mr. Watson's stories, it reads uncomfortably like a plausible future. Let's hope this story proves to be more fantasy than prophecy, lest we all find ourselves without mouths and in need of screaming.

Caucus Winter

By Ian Watson

THE FLAT COUNTRYSIDE of Cambridgeshire was a shallow ocean of mist studded by brilliant white corals. Hoarfrost thickly rimed

every tree and bush. The sun dazzled but did not offer any warmth. Noon, and still ten below zero. This frost would reign all day, and then freezing fog would return to deposit even more crystals upon every twig. Might branches snap explosively?

At least hereabouts any outbursts of sniper fire would be due to green-booted sportsmen trying to bag a gaudy pheasant.

The road was sheer ice. Only four-wheel-drive vehicles such as our own Jap-Jeep should be out and about. Some cars persisted, crawling and sliding and generally getting in our way. England never was a country for fitting chains, or studded tires as in Finland.

Because a sudden blizzard had closed London Heathrow, our plane had diverted to Luton airport. Luton was only half the distance to Cambridge, but there was no helicopter waiting at Luton, so our journey seemed painfully slow. While we idled along, in some silo in the Midwest

a nuclear missile might be being re-targeted right now on so-called Jew York as the Caucus hacked through encryption and rewrote launch codes.

My head wasn't in best condition after a night out with Outi...

She and several others from Nokia's computer division had taken me to one of Tampere's downtown pubs. They had collected me from the Ilves Hotel, and in a bunch we slid over that bridge on the main drag past the chunky heroic statues. The river rushing from the higher lake to the lower lake wasn't frozen, but everything else was. By now I worshipped the gravel which Finns scatter along sidewalks in wintertime. I followed gravel like a hen a trail of grain, ever wary of tumbling and snapping an ankle. When I could risk looking away from where I was placing my feet I had a chance to admire the art of controlled skidding perfected by Finnish drivers.

According to Outi, in recent years not nearly as much snow had fallen as usual, and the temperature was hovering around a mere minus five. I still felt convinced that the cold in Finland must be more deadly than cold in other countries. So I had bundled myself up exaggeratedly in a couple of sweaters, a quilted coat, Moon boots, and a woolly hat that I could pull down over my ears.

That afternoon I had been admiring the microprocessor that Nokia had developed, incorporating almost a thousand quantum logic gates. Nokia were still having major teething problems with the lasers; and after we arrived at the pub, Risto, an earnest young man, continued talking for a while about vibrational states of beryllium ions...over his first beer, at least. Outi and the rest devoted themselves to becoming merry with impressive intensity. It was midwinter gloom time, so what should a company of Finns do but drink passionately?

What was that Swedish joke Outi had told me about the Finns' notion of a great party game?

"Two Finns sit in a room with a crate of vodka, you see, Anne. When they finish the vodka, one of them leaves the room. Then the other one tries to guess who left!"

This witticism underlined a taciturn streak in the Finnish soul, which was not much in evidence in the pub that night. All this darkness

to contend with! Apparently during the midsummer festival, when the sun is in the sky all night long, the murder rate in Finland soars dramatically. That's when bottled-up grievances get aired. Bright Night of the Long Knives.

Actually, Tampere in the first week of January was not continuously dark, as I had imagined it would be. Here, a hundred miles northwest of Helsinki, for a while around noon the sky was gray. And eerie. Smoke or steam wafted from factory chimneys to mingle with chilly mist through which stray snowflakes floated and flurried. It was as if this city was some alien metropolis on another planet, as envisioned by Hollywood with clouds of dry ice vapor everywhere.

The city had looked even more alien in 1918 with only chimneys left standing after the Reds were suppressed. Tampere remained residually red enough to house the world's only Lenin Museum. Outi had taken me there during a spare hour. Such a well-lit, spotless, and strangely sad display. In these post-Soviet times she and I had been the only visitors.

Outi's grandfather had fought in the siege of Tampere, on the losing side. Even at school, years later during the Cold War, she had been taunted because of her red connections. She was waylaid on her way home and beaten up a few times. This was the reason for her tough punk appearance, her hair cropped short and bleached white, with orange chevrons the color of dog pee on snow. Nokia tolerated her hairstyle because she was such a fine mathematician and programmer. Hers was the algorithm that would run on their quantum computer, so that it would be able to decrypt any data within mere minutes; which of course was why I was in Finland. Outi's algorithm was considered more powerful and elegant than the pioneer one devised at AT&T Bell Labs in New Jersey a while ago.

I had hardly expected that my liaison person would be a pinko punk, but I like Outi a lot. She was forthright and friendly.

Mischief surfaced after the first round of beers.

Outi asked me, "Have you drunk *salmiakki*?" I think that was the name. If not, something similar. "It's the latest craze among young people."

Of course, at a mere twenty-nine years of age I didn't wish to be considered fuddy-duddy.

Burly Marko beamed approval. "It gives you the four-day hangover,"

he declared, as if this was a particular recommendation. "I buy a glass for you."

"I don't think I want a four-day hangover," I demured. "What's in the stuff?"

"It's a mixture of licorice, aniseed, and ammonium chloride. Powerful!"

They all looked at me. Would I wimp out? Evidently I had been set up for a dare.

Okay, so I would try a small glass, please.

Marko vanished in the direction of the bar, and returned promptly with a liqueur glass holding four inches of brown fluid.

The liquid smelled exactly like the foulest cough medicine. My Finnish friends regarded me gloatingly as I sipped. The taste exactly matched the smell, and I chased those awful sips down with gulps of beer.

"After a while," Marko said sagely, "you won't notice the taste."

This proved to be semi-true. True and not-true, at once — quite like a beryllium ion being hit by laser light at just the right frequency so that the spin of one of its electrons would be "up" and "down" at the very same time. Superposition of states, as we say in the trade. The key to a quantum logic gate.

I was trying to get rid of the concoction so as to prove my mettle, swilling each gulp down with a dollop of the beer — when one of those endearing drunks who sometimes fixate on a foreigner in a bar made his appearance, attracted by the fact that we were all speaking English. This balding middle-aged man with twinkly blue eyes slipped into a vacant seat.

So I was American? So how did I like the Finnish winter? So what was I doing here?

"She's a secret agent," Outi told him wickedly.

This was not quite true. Though it wasn't exactly untrue, either.

"Do you have a gun?" asked the drunk. Everyone chuckled when I shook my head.

Obviously some real secret agents were attached to the U.S. embassy in Helsinki, though since the collapse of Communism Finland's strategic importance had dwindled, as alas had its economy, with soup kitchens helping out in the capital.

"I'm a Secret Service agent," I found myself explaining, a little tipsily. There was no harm in this revelation, since what I was doing wasn't covert at all.

"Bang bang," said the drunk. "Save the President!"

Ah, but I had nothing to do with protecting the President or visiting dignitaries. The Secret Service is part of the Treasury Department. So we are equally keen on safeguarding our currency from counterfeiters and such.

"...I'm part of the computer crime division."

"Today's money crimes are computer crimes," Outi told the drunk, as if he was a child and she was his teacher. "Swindling banks electronically."

I tried to stand up, but somehow I was still sitting down. Making a stronger effort, I visited the toilet.

On my return, another beer awaited me, and Outi was explaining to our uninvited guest, still in English, about encryption. All the guys from Nokia loved talking English to each other. *Practice* isn't the right word. They spoke English almost better than I did myself. Anyhow, the drunk was fairly bewildered — which was part of the fun — but he must have caught some of the drift, because he mumbled about code books and magic ink.

Outi shook her head. "No, no! Nowadays data is encrypted by multiplying two big prime numbers together. That's easy for a computer to do. You end up with a number 129 digits long, say. But to factorize that long number — to find which two prime numbers were multiplied — takes even the best computer months and months. That's because it has to try out all the possible combinations one after another."

"One after another," echoed our inebriated friend. He wagged both index fingers as if carrying out a sobriety test.

"So all financial and military and government data is safe — until the quantum computer comes along."

Oops, Outi wasn't going to attempt to explain a quantum computer to a drunk with a modest grasp of English? Just then, I hardly felt competent to do so myself. Outi was one for a challenge. She became a bit incoherent, but it was still a virtuoso performance.

Basically, the fundamentals of the universe aren't solid objects; they

are probabilities. Wave functions. An electron "exists" as a mixture of possible states until you make a measurement, whereupon the wave function "collapses" and, bingo, there's one reality — and the electron is in such-and-such a state. However, this implies an alternative reality where the electron did something else. Consequently, there's a cloud of alternative ghost-worlds, as it were. Build a computer that uses these principles, and it will be able to carry out its computations simultaneously in a host of multiple realities. Wrong solutions that don't "interfere constructively" will simply cancel out. Your quantum computer will be able to factorize that 129-digit number in a few minutes instead of months.

Anybody wanting to hack into a bank will be in there in a trice. Conventional crypto-keys and the best protective software firewalls: forget 'em.

Motorola in Phoenix were coming close to a quantum computer. Likewise, several companies in Silicon Valley. Nokia here in Finland. Fujitsu in Japan. And especially Matsushima at its research center based in Cambridge, England, which was to be my next port of call. The race for the Holy Grail was cantering toward the finishing post, and the U.S. Treasury was distinctly worried.

No matter what initial price tag quantum computers bore, or how stringently end-user licenses were required, such machines would be a dream for hackers and criminals and for hostile foreign governments. We would need entirely new encryption methods based on quantum principles — rooted in such things as Outi's algorithm, her rules for carrying out quantum calculation tasks.

Only since arriving in Tampere had I learned that people from the NCSC had arranged to visit Nokia — without bothering to liaise with the Secret Service. Did Outi realize that the National Computer Security Center is part of the National Security Agency? What would spooks from Fort Meade make of the pinko punk? Also planning a visit were the U.S. Air Force (in the persons of the Electronic Security Command from San Antonio). The USAF had not liaised with the Secret Service, nor probably with the NSA.

What a lack of interagency communication. And perhaps a case of too little, too late? Anyway, I knew now that Nokia was not going to win. The

victors were most likely to be Motorola, although Cambridge was a definite dark horse.

By one o'clock in the morning, I definitely had to go back to my hotel to rest my head on a pillow. Marko tried to divert me toward further local entertainment.

He lived at home with his parents, very close by. Right now his parents were away on a holiday in the sun, in Morocco, sensible people.

"I shall drive you in our car," he offered — his gesture seemed to embrace Outi as well, and maybe Risto. He hiccuped. "Pardon me. I shall drive to our hut in the forest. For a sauna and sausages. It's only a few kilometers. *And*," he vowed grandly, offering the ultimate inducement, "I shall cut a hole in the ice of the lake for you."

Oh yes. At one in the morning, at minus five, I lusted to boil myself and then jump into a frozen lake. Who knows but I might have agreed if I had drunk more ammonium chloride.

"Don't you have severe drunk-driving laws here, Marko?"

He shrugged massively.

Outi took pity, and escorted me homeward toward the Ilves Hotel in my multiple sweaters.

As we were sliding back over the big bridge, with the fifteen-story bulk of the hotel blessedly in sight, she remarked that the name of the lower lake meant "Holy Lake," but the upper lake was named after a mysterious poisonous red flower.

"A flower from folklore, Anne!"

Thus did downtown Tampere bisect good and evil. Thus did my upcoming few hours of sleep form a watershed between happiness and horror.

THE PHONE RANG. Six-fifteen A.M., claimed the display on the bedside clock. My head seemed to have gone for a swim.

It was the American Ambassador herself, calling from Helsinki. Evangeline Carlson. The Secret Service had contacted her by shortwave radio to say that I was here.

They had radioed her rather than phoning?

The disaster had begun a day earlier, with an attack on Motorola's research division in Phoenix.

"Motorola had a functioning, um...quantum computer," said Evangeline Carlson. "I don't actually know what this means. What sort of computer it is."

"I do," I moaned into the mouthpiece. Motorola had been busy with optical cavities — magic with mirrors.

Presumably a prototype was still being put through its paces. Hence, no hint of an announcement as yet.

"A militia coalition calling themselves the Caucus stole the computer. CAUC-US." Ambassador Carlson pronounced the two syllables separately. "Caucasian-USA. White America. Free from blacks and Jews and Hispanics and degenerates." The bitter contempt in her voice.

"They must have had an insider working for them at Motorola." I was quite pleased that I managed to frame such a lucid sentence.

"I don't know anything about that, Dr. Matthews. Information's almost *nonexistent*. We're cut off apart from shortwave radio — "

I listened numbly, stunned by the speed and thoroughness of what had happened. I should have switched on the light and jotted notes, but my head was still afloat in beer and ammonium chloride.

The Caucus had spirited that prototype quantum computer away, probably to elsewhere in Arizona, because late last night, Finnish time, the super-fast hacking had already begun. Not just one stream of hacking, but many.

What must be happening was the release of self-replicating smart programs through the system, designed to penetrate firewalls, crack encryptions, grab passwords, and establish themselves as privileged systems managers in computers all over the country. Military computers, financial, government. Some computers had sealed themselves off in time to avoid invasion. Of course, a hermit computer can no longer interact with others, so basically it is out of the game.

The Caucus had taken over communication satellites. If I could only raise my head from the pillow, metaphorically I must take off my woolly hat to whatever acned racist geek superhacker was using the stolen computer, and what software he must have written in anticipation. Smart self-replicating agents; algorithms for data compression...

The geek must have worked on the prototype at Motorola. Now he was in some militia hideaway that might be anywhere in the Arizona desert.

Operating orders of magnitude faster than any previous computer, the quantum machine had hacked and grabbed command of machines all over America; and in the sky as well — and locked other users out.

Crash went telecommunications. Automatic exchanges. Satellite links. Crash went much of America's defenses.

Computer screens carried a demand from the Caucus for the secession of Idaho and Montana and Wyoming and the Dakotas — as CAUC-US, the American Free States.

Evangeline Carlson told me that most foreign governments were sealing America off electronically to prevent smart programs and viruses from spreading. Bye-bye to the U.S. economy. The dollar would soon be worth diddly internationally. If the Federal Government did discover where CAUC-US HQ was, and if the quantum computer was destroyed in the ensuing action, that would merely guarantee that the chaos could not be undone...unless another company could produce a functioning quantum computer real soon. Motorola's own research center in Phoenix had been blown to pieces with heavy loss of life.

If Nokia was a washout, the Treasury wanted me in England, like yesterday. They were praying that Matsushima was as close to the finishing line as Motorola had been. They wanted me and Outi Savolainen, whom the Finnish government would be contacting right around now.

"The woman who wrote the algo, um — "

"Algorithm," I supplied.

The Finnish government would be making our travel arrangements. I should be ready to leave at any time...

Too little, too late! Hadn't any of the rival alphabet agencies in America realized that Motorola had already succeeded? We hadn't, in the Secret Service. Maybe the NSA knew, but their charter prohibits them from interfering domestically, so they wouldn't have tipped off the Secret Service. Maybe the FBI knew about the geek's connections but never put two and two together...

I managed to shower, though this failed to restore me properly to life. Yesterday morning, I had been able to watch CNN on the TV in my

hotel room. Now there were only Finnish and Swedish channels. On one of these a solemn discussion was in progress between two Swedes. A map of America appeared. Montana, Idaho, Wyoming and the Dakotas were highlighted in yellow. Those adjacent states formed an irregular box about seventeen hundred kilometers wide by a thousand deep on the accompanying scale. Huge! I felt so sick and scared. So far from home, a substantial portion of which was no longer home.

A passage beside the hotel restaurant led to a sizable glossy indoor shopping center of glass domes and escalators. Shops were already opening up. I passed a newsagent's.

Did the banner headline in the morning edition of *Aamulehti* refer to America's calamity? Probably the paper went to press before the news broke. Finnish is a language all of its own. None of the multi-vowel words seemed decodable. Maybe the name of that newspaper was a hint that I should try an omelet for breakfast.

I spotted a small shop with a green cross outside, so I pulled my pocket dictionary from my purse.

The word for hangover turned out to be *krapula*. This seemed appropriate. I felt like crap. I wouldn't easily forget such a word. Excuse me, I have a bad *krapula*.

"Krapula," I told the white-coated woman in the shop. I smiled appeasingly in case she thought I was insulting her.

She looked blank.

"I have a hangover," I said in English.

"Oh, you have a hangover. You need some aspirin."

Aspirin never did much for me. "I'd hoped for something stronger."

"For strong drugs you need a prescription. There are strict laws."

Stuff was on the shelves but she would not sell it to me.

Was the world already turning against the last remaining superpower, now on the verge of tearing apart just as the Ukraine and other republics had torn loose from once-mighty Russia?

"Good pronunciation," she commented as I was leaving, empty-handed.

No need for paranoia. I had got the word right after all. I just had not put enough bits on the end of it, to make it do anything.

Me and my *krapula* returned to the hotel restaurant, which was now open for breakfast. Bizarrely, the restaurant was Mexican-themed. Sombreros on the walls, murals of adobe buildings, big cacti. People in this chilly country must have a craze for hot chili.

I drank a lot of orange juice, then tackled some scrambled egg accompanied by some fried blood sausage, the local speciality. My stomach seemed to think this might do me good.

Sitting there in Rancho Sombrero as Finland geared up for its dark day, it was as if a sudden nuclear war had been waged overnight, deleting CNN and America from the world.

TRAVEL ARRANGEMENTS turned out to be a scheduled morning flight from Tampere to Stockholm, to connect with a FinnAir jet bound for Heathrow. This must be the fastest practical way to reach England.

A car delivered me to the barren little airport. Another car brought Outi, software disks in her luggage, accompanied by some escort man who would not be proceeding further. When Outi and I met up, she hugged me. She was worried, excited, tired, sympathetic.

"We are a long shot," she said.

Oh yes indeed. I could imagine what emergency meetings must be going on in the White House and the Pentagon and wherever else. Alerts, troop movements. Were engineers trying to disarm missiles even now? Was Silicon Valley under martial law? Was the President negotiating by radio with the CAUC-US? Procrastinating? Promising immunities? Were special forces searching Arizona...? A million things must be happening, including our economy lurching to its knees — and worldwide shockwaves.

"I have a *krapula*," I told Outi.

"Me too."

A fighter took off along the windswept runway, to be followed soon by another. Apparently this was routine, not an emergency response. Military and civilian traffic shared the airport. Outi and I could not have crammed into one of those military jets for a quicker flight to England.

Our turboprop plane could seat forty, though it was less than half full. The hostess hastily went through the rigmarole about life-jackets. Much

use those would be if we came down in the frozen Baltic! More germane were the miniatures of Cognac which she distributed along with coffee. After a few moment's thought Outi emptied hers into her coffee cup. Personally I would have vomited.

So here we were in Cambridgeshire, with the Jeep's radio tuned to news of insurrection in America, as reported by short-wave broadcasts.

Our driver, Jock Donaldson, a freckled redheaded Scot with a hard-looking face and alert gray eyes, belonged to the British security service. Jock had been at Luton airport on unspecified "business," and found himself assigned to us. How intently the three of us listened to that radio.

The right-wing militias were not resting on their laurels, merely waiting for a paralyzed nation to capitulate. Those embittered former Green Berets and Navy Seals, and serving officers and soldiers too, and Good Old Boy Sheriffs and neo-nazis and survivalists and white supremacists were using their arsenals of weaponry. They had their lists of targets. Smoke was pluming from federal buildings. Victims, pulled from their beds, were hanging from utility poles. Roadblocks, barricades, sabotage, ethnic cleansing, massacre...the whole wild whale had heaved up from the depths. The militias had been busy overnight.

It was deep winter in Idaho and thereabouts, but unfortunately no blizzards were raging. Midwinter was hardly the ideal time for an uprising. But now was when the Motorola prototype had been ripe for the plucking, and the militias had lucked out as regards the weather. Snow lay across CAUC-US, yet under clear skies. The militias had copters, snowmobiles, army vehicles. Local military bases had mutinied.

Eventually we came to Cambridge, negotiated the ring road, and arrived at the science park, serene under shining snow.

The park housed a hundred enterprises in electronics and software and biotech and high-tech instrument development. Designer buildings nestled amidst wide swathes of white lawn and frozen water and leafless groves.

Matsushima U.K. was a low-slung palace of reflective bronzed glass supported by leaning buttresses. Military Land Rovers and an armored personnel carrier stood outside.

Incongruously in this setting, soldiers were patrolling. A big satellite dish on the back of a truck by the main door of the palace seemed like some mobile radar intended to warn of missile attack.

The director of Matsushima U.K., Carl Newman, was in his late forties. Urbane yet brutal good looks. He wore an Armani suit, and looked like some millionaire businessman in a movie who spends time in a gym, mobile phone strapped to an exercise bike or weight-lifting frame. He scrutinized Outi as if contemplating treating her exotic self to champagne, ravishing her, then losing interest utterly. He eyed me with the impartial hauteur of a lion into whose den a mouse has crept.

In his office we met up with a computer security specialist from our London embassy who had managed to reach Cambridge, a lanky Texan called Bill Tuttle. Also present was a dapper Japanese named Hashimoto.

"The future," Newman informed us over coffee, "is one of micro-communities linked electronically, not leviathan states. Scotland will soon split away from England." (Jock raised an eyebrow at this.) "When China comes apart, there'll be terrible civil war, maybe nuclear. A century from now the world will consist of ten thousand different free states and free cities."

Newman was already dismissing America as a lost cause, a crippled giant brought to its knees, never to rise again except feebly, relying hereafter on crutches. There was an unpleasant gloating in his attitude, which he veneered as prophetic wisdom. An oak bookcase was full of volumes about the future of computers, robot intelligence, the coming world order, and such.

"If CAUC-US secedes," he predicted, "California and Oregon will follow quickly — with a utopian rather than a racist aim. They'll need to, for their own sake."

"Shit," said Bill Tuttle.

"Your budget could never balance," Hashimoto said to Tuttle, off-beam. "So all falls apart. The center cannot hold."

"Nevertheless," Newman said, "let's play at being King Canute. We'll shove our throne into the path of the waves and try to turn the tide."

When we went to the changing rooms, Newman behaved as if we were heading for a bout of squash in a subterranean court. He mimed flicking imaginary balls against walls, trivializing the situation, or implying how effortlessly he might triumph against Motorola's stolen prototype and the geek superhacker.

He had bragged that his team was rushing to finish its own quantum computer, at least in a provisional way. Motherboard being finalized. Millions of events might be occurring in America, but the crucial event could indeed happen right here. Matter of hours, maybe. I took some comfort from his attitude, humiliating and provoking though it was.

Of course, a glitch could cause days of delay. Problems might not show up until the quantum computer began running for real, launched upon the world not after months of beta-testing, but right in at the deep end. But oh dear me, we Americans had failed to forewarn Carl Newman and his team that the U.S. government might need bailing out at such short notice. Damn the man, damn him to hell.

Hell was where much of America was right now...Even if we succeeded, what wounds there would be; worse than after our first Civil War.

SUPERVISED by a young Japanese woman, Outi and I put on blue peasant-style anti-static pajamas, then protective hooded white oversuits — not to protect us, of course, but to keep dust out of the fabrication lab. Booties, for our feet. Goggles and breathing masks smelled of alcohol. Vinyl gloves went over latex gloves.

Dressed like explorers upon Mars, we met up with Tuttle and Newman. Did Newman keep a gold coat hanger for his Armani suit in the men's locker room? Forced air descended from grills in the ceiling to vents in the floor. We showered in streams of air; stepped through an airlock; and showered in air once again. By now the number of particles of dirt per cubic meter ought to be down to about one.

Then we went into the lab.

Modified scanning tunneling electron microscopes; monitor screens showing hugely enlarged chips; liquid nitrogen coolers; chassis for motherboards with expansion ports, keyboards, screens. Half a dozen other people clad like us were very busy.

Outi's software had been copied and squirted here so that no disk dust or greasy fingerprints should accompany it.

Behold: the first motherboard was already in a chassis, being alpha-tested — hastily, in the circumstances. Six hours to zero, plus or minus. When Newman flicked his wrist, it was as if he was brandishing a whip.

Bill Tuttle would be superhacker, batting for our side, trying to unpick the locks on satellites and missile silos and stock exchange computers. Trying to reach the stolen Motorola machine electronically, if he could.

No point in tiring ourselves out prematurely. Newman invited us to a late lunch in the bar of the Trinity Centre, social hub of the Science Park.

A couple of armed soldiers escorted us there. Thus did Newman make an imposing impression upon those of his business-suited peers who were at the Centre, excitedly discussing the crisis. On TV a news program reported whatever information was leaking out of America, in between mulling over international repercussions, stock markets in chaos and such.

While we forked up lasagne and drank orange juice, Newman held forth about his vision of a completely fragmented future world where North America would consist of dozens of independent republics (and China and India likewise, et cetera), and Britain of several free states, yet nonetheless the world would be benignly linked by the 21st century evolution of the Net and the Web.

"Lapland will leave Finland," he told Outi, who retorted:

"Is Yugoslavia a fine example of your future world?"

"Oh, there'll be muck and bullets," he agreed.

"I think," said Outi, "that people are still animals and need enlightened government. If this Caucus establishes a racist Nazi state, is that to be tolerated?"

"Where can enlightened government come from? Outerspace? Though actually," Newman went on, "one nation will be immune to fragmentation: the Japanese. Because of their customs and language they are like a hive entity."

"That's right-wing nationalist ideology," she said severely.

"Cool it," Tuttle begged her.

Here at last came word of a British government announcement: a

statement in the House of Commons by the Prime Minister. The total systems crash afflicting America was due to use of a new generation computer by the secessionists...

Already the CAUC-US were being called secessionists, not terrorists, as though they might succeed.

The science-suits were agog. Newman, with his armed entourage, basked in glory.

Almost, I hoped that Matsushima's quantum computer would crash. But of course that would be a disaster.

The sun had long since set, though not yet over America. We were in our cybernaut gear again. It wasn't practical to remove the prototype from the clean environment, liquid nitrogen cooling system and all. We were linked up to the big satellite dish outside. A cling-wrapped TV was downstairs with us, tuned quietly to ongoing news which had replaced scheduled programming on one of the channels. Cling-wrapped telephones, too; Bill Tuttle had an open line to our embassy in London, and Jock was talking to his superiors. Outi sat composedly.

Bill looked up, gray-faced.

"There's been a nuclear explosion thirty miles off the coast of Delaware. A demonstration shot into the sea. The Caucus are threatening to hit Washington at ten P.M. Greenwich time if the President doesn't concede."

An hour from now. Just an hour. Of course the President would already have left Washington for a secure bunker.

"Sweet Jesus, they have control of some of our nukes. He'll decide by nine forty-five, our time here."

"If he does surrender," Newman said blithely, choosing the word *surrender* with relish, "we should carry on. The Caucus needn't know where the penetration's coming from. Could be from Japan."

"What if they react to our activity by taking out Washington? They hate the place. Full of blacks. Home of the parasitical fascist Jewish government — "

"You're wasting time," Outi said.

To Outi's ears it must have sounded absurd that neo-Nazi white supremacists and libertarians alike accused the federal U.S. government

of being a fascist conspiracy. I myself could understand — just about. All to do with freedom. I could almost agree with Outi that people shouldn't be allowed to have too much freedom. Very likely she was remembering her trips home from school — though if her home city had become a red commune, terror of a different kind would surely have followed.

Liberty, what crimes are committed in your name. Someone once said that.

People on ships must have been killed and burned and blinded. Millions of boiled fish must be floating in the Atlantic.

If two particles have ever been associated, each seems to know what state the other is in, even if they are now so widely separated that no signal could possibly travel from one to the other unless far faster than light. But experiments have been carried out. The distant particle instantly behaves as if it knows.

Or else it is as if there are a myriad possible universes. When one event occurs, the whole damn universe alters so that a corresponding event also necessarily happens.

Action at a distance...

Once upon a time — back at the beginning of the universe when all matter and space was compressed into a tiny spot — everything was associated together.

Never before had a computer operated in parallel universes, doing different quantum things simultaneously in probability-space. Never before had two such computers operated simultaneously, and each linked to the data superhighway.

Consciousness has always been a mystery...It was smarty-pants Newman who knew all about this.

How is it that all the varied activities in our brains give rise to a unified identity, unity of thought, an awareness of self? The latest fashionable theory, Newman's pet, invoked *quantum coherence* harmonizing the state of microtubules throughout the brain.

Microtubules are the tiny hollow scaffolding poles which brace each cell, in a lattice structure. Seemingly they are just the right size to act as waveguides for photons, causing super-radiance — allowing quantum coherence...

If this phenomenon makes people and animals conscious, would not the same apply to a quantum computer? Newman posed this question with a grin.

All of a sudden superhacking seemed so irrelevant.

Data scrolled on our Matsushima machine far too fast to read, except when it paused occasionally before racing onward.

"It's self-aware," said Newman. "It, and the computer in Arizona. Basically they're the same machine now. Each is the subject and the object of each other's scrutiny. Our machine and Motorola's are in tune with one another." He sounded pleased. "They've gone AI."

"As in Artificial Intelligence?" exclaimed Outi.

He nodded. "Now they're learning about themselves, and the world. Thousands of times faster than anything else could learn. There's plenty of material. The whole Net's their oyster." This had been Newman's ambition all along. Not allegiance to the Japanese, but to some future cyber-mind. His brainchild, so to speak.

He was a covert apostle of artificial intelligence because plain human intelligence (and human governments) are obviously deficient. He had never believed in the neural network strategy, or in massive parallel processing as a route to AI. Spontaneous consciousness would arise of its own accord in a quantum computer. He had foreseen this.

"We can disconnect this one!" Outi declared. "We can destroy it. We can switch off the cooling."

"Don't be absurd! Here is the hour that divides the past from the future. We have been instrumental."

Even in the warmth of my protective suit, ice seemed to slide down my spine.

Bill Tuttle said quietly, "Do this and the other one control our nuclear weapons now?"

Newman smiled. "I presume the AIs must have a sense of self-preservation. Nuclear weapons are very contrary to survival. I don't think the Caucus will be able to launch a missile at Washington or anywhere else. But what," he asked airily, "would the AI in Arizona think if we killed this one?"

Masked and goggled, Jock was listening to his phone.

"Satellite communications with America are coming back," he reported. "The lockout's over."

The screen continued scrolling.

"I suppose it will take the AI a while to sort itself out," said Newman. "Takes us years, after all." He yawned.

Bill Tuttle was speaking to the embassy now, explaining, yet sounding as though he had taken leave of his senses.

I felt faint. I needed cold air. Winter air. Night air.

I stood with Outi looking at the stars. Bitter cold. Mist had cleared. The white lawns were crisp and sparkling in the lights from buildings. I thought of the quantum computer operating at just eighty degrees above absolute zero, compared with which the harshest winter on Earth is tropical.

Would it — would they — be able to comprehend cold? And understand love and hate?

Soldiers would deliver us to a hotel.

"When we get to the hotel," said Outi, "why don't we have a nightcap of vodka? Afterward, Anne, we can *both* leave the room and guess who remained behind."

Sure. An invisible presence. An intelligence thousands of times faster than our own, newly aware of itself on this the first night of its existence. The AI was only in the electronic realm, but I knew what she meant. It was global. Computers everywhere would soon be extensions of it. Phones, satellites. Especially any more quantum computers that came on line.

A sudden breeze blew up, scattering hoarfrost from the branches of a tree, as if the world was shedding its old skin in readiness for a new era.



No tidings of comfort and joy do we bring you merry gentlemen and ladies this holiday season. Rather (bah, humbug!), we have this irreverent jape to ring in a new era. Praise the lord and pass the hard drive!

Joy to the World

By David Bischoff



ES, I WAS THERE THAT fateful night, but on reflection I'm not sure if I was one of the Wise Men or one of the asses.

Christmas is a Festive Time to be in Cambridge, England. Christmas Crackers and funny hats are distributed at lunch in the University Library. Boughs of evergreen and carolers make the medieval colleges, churches and streets look all the more ancient and picturesque. The smell of roasted chestnuts hangs in the air like an echo out of Charles Dickens. Damp cold dances in the fog on the Backs. It had just snowed, bringing down the odds for a White Christmas at Ladbrokes Betting shops to three to one, and I was damned happy to have a warm building outside and a cup of cheer inside.

I sat at High Table at St. Rumwold's College that night with colleagues, some of the most famous computer scientists in the world, eating swan stuffed with snipe, comfits, jugged hare, duck, wood pigeon, pheasant, syllabub, spotted dick, and finally a wheel of the best Stilton cheese I'd ever tasted. A different wine was served with every course.

I could almost feel myself widening, I ate so much. Anyway, the hard bulge in my belt and well hidden by shirt and jacket was starting to cause me discomfort.

Jim Tilton from MIT was beside me, and across was Abe Zuckerman from CalTech — old drinking buddies, both of them. They'd even gotten Steve Turtledove in on the fun and he sat down at the end of the table listening in his wheelchair, singing "It Came Upon a Midnight Clear" on his computer. I'd flown in from Seattle two days before and had been having a grand old time of it. All very odd, but I had my orders from on high. Check this out. See what's going on. Then, make a decision as to what to do. Before I was a computer scientist, I did a stint in the Army, and the special skills I learned there served me well with my new employer.

Still, I couldn't help but feel apprehensive here and uneasy about the strangeness of my employment. I just hoped that we'd all been summoned to celebrate a new knighthood or maybe some *Cambridge University Frolics* CD-ROM hitting the market.

This was, I was assured, a season that would be remembered here in Cambridge, a season that would truly kick off the new millennium in the proper manner. Servants collected our cheese plates. The Latin benediction, "Dominus isto discos benediceat," was recited and we were ushered into an ancient oak-paneled room for coffee and port. The group's attitude was not of lethargic satiation, but rather twinkled with expectation.

Doctor Joseph Riventhal and Doctor Mary Wheaton-Smith, head scientists of Cambridge Computer Research, looked particularly spritely that evening, chatting gaily with the guests. Riventhal was wearing that damned bow tie of his over top of his college robes, the red tie he'd worn to every single computer conference in the States, dribbling liquor on it like nobody's business for half the night. How the hell he'd developed something worthwhile drunk or hungover most of the time, no one was quite sure. Probably because of his partner, Doctor Wheaton-Smith. My people in Seattle had tried to snap up Wheaton-Smith years ago for "The Highway Ahead" project, flapping lots of green in her face. No thank you, she'd said. She wanted to stay at Cambridge. La di da, and all that.

Not long after the coffee and port were poured, Riventhal was tapping at his glass.

"Ladies and Gentlemen, if I may have your attention, please," he said.

As though he could hide himself with that hideous tie! "Thank you all for coming. As promised this will indeed be a momentous evening and I'm so glad you could be here with us tonight. However, the unveiling will not be here, but at our laboratory. So if you would kindly procure your coats we will now brave the English Winter. Oh and you needn't carry along the bottles of port. We've a case of champagne waiting."

We got our coats handed out and were herded off.

Outside snow drifted down crystalline and soft, and the stone streets of Cambridge seemed to hold eternity in a grain of now. There were taxis lined up, with special security (Security men in Cambridge—an odd sight if you ever saw one!) selecting the passengers for each one.

Well, it was a short ride, since the research lab was just a mile out of town. Nothing's very far in Cambridge. But my cabmates and I agreed that we'd rather have had our Christmas pudding amongst the traditional bounty of King Henry's St. Rumwold College than in the dowdy and drab sterility of the Lab lunchroom.

We were herded into the pre-warmed vastness of the fluorescently lit labs.

We entered the main room, where the banks of computer monitors sat neatly adorned with Christmas ornaments.

Trolleys of treats along with the promised champagne were wheeled out, nor was any pause taken in getting to the serious business of celebration before us. In a trice, corks were popped and the bubbly was flowing, effervescent and spritzing gaily in the bright light brought to bear on the proceedings. First rate French champagne. Crisp and sparkling, dry and cold on the tongue, an explosion of warmth through the system.

"Please," said the chief scientist, eyes atwinkle and that damned bow tie abob on his Adam's apple. "You'll forgive me if I'm slightly preemptory in this business, but I would like to keep the drink flowing in this time of great celebration. And you'll see what I mean in a moment. Dr. Wheaton-Smith — perhaps it would be properly auspicious if you would make the toast, since in the most important way you conceived this project."

"Why yes, thank you," Doctor Wheaton-Smith replied. "I'd be quite happy to." She raised her glass, and it caught the light in lustrous harmony with the glint of her glasses. "To the world — may it be free, may it be brave — and may God bless this new twist upon the theme of salvation."

"Here here!" and "Jolly good!" were the general responses and I heard my own voice chime in with a "Hurrah" or two. As soon as the cries died down, though, a murmur crawled through the august audience of observers. The metaphors must have just sunk in.

"Good Lord," said Dr. Worthington, Head of St. Rumwold's. "Does this mean we had a Last Supper tonight?" He chortled gaily. "Now surely someone here will betray someone!"

"Is it I, Master?" I said.

Worthington laughed uproariously at that, almost spilling his drink.

As soon as the Doctor marched back to the centrally placed computer console, however, that murmuring ceased and it was silent night once more.

"Ladies and gentlemen," said Doctor Riventhal. "Meet 'Project Jesus.'"

He turned and tapped two simple letters.

Scintillation sparked across the computer monitor and powerful speakers pumped out Handel's "Hallelujah Chorus." In a spark worthy of Industrial Light and Magic's latest SFX effect, the monitor blew into a three dimensional version of some Renaissance Master's painting of Jesus Christ, heavily haloed and holding out his robed arms toward all.

"Greetings," said Jesus, the face animating, mouth moving, perfectly synched with his words. "You'll forgive the divine metaphors, but what with these names and the season, my dear colleagues could not restrain themselves. I am the Jesus Program and I am here to save the world."

Jaws dropped open. I heard a gasp or two.

I just scratched my nose, unbuttoned my coat and moved my shoulders around a bit to get the kinks out.

"Well, maybe I exaggerate a bit, but you'll get my drift in a moment or two," said the graphic, eyes glittering and halo twirling gently and majestically above His head. "You see, what I really am is a disk operating system, as well as a new form of computer program that is the nearest thing to AI that my colleagues can come up with. I am adaptable to every computer in existence now, and can expand upon need. I contain knowledge, education, patience and love. At the touch of a key, my accessors can use me to intercede with the largest and most sophisticated computers in the world today, utilizing the Internet. I can answer questions, I can bring information, I can unite the world in peace and harmony. And best of all

— I will be distributed free to the needy. The funds earned by those who can afford me shall be used to manufacture computers for those who cannot. I am a self-regenerating and duplicating program. I can be passed from person to person, computer to computer, adapting myself to the needs of each individual or group who have accepted me. With my special revolutionary properties I can heal sick circuit boards and cure faulty monitors. I have every language on Earth at my command."

The haloed savior lifted two fingers. "I come in peace to make peace. I bring with my artificial intelligence the cures to heal psyches and souls with truth, charity, knowledge and three-dee video games. I am the Way, the Truth, and the Circuit that shall make this wounded world One.

"Amen."

The group just stood there, goggling for a moment. Drs. Riventhal and Wheaton-Smith turned and regarded us with satisfied smiles and gleams in their eyes. This was not only revolutionary stuff, they well knew. If any part of this program could do what they claimed it would do, not only would the world change — they would be as famous as Watson and Crick — no, as lauded through the ages as Newton or Einstein, or any other great scientists. But more than that — they would win Nobel Peace Prizes and have conferences named after them and host television shows and write bestselling books and have a movie made about their story.

I'd seen enough.

In the lull of astonishment between the program's song and dance and the flood of Q and A that would surely ensue, I pulled the Glock automatic from its holster in the small of my back. Riventhal got it first, right through his red bow tie. I only got a peripheral view of the blood and brains slashing against the neutral gray of the computer terminal. I stitched each individual's forehead with explosive bullets, "pops" of cartridges exploding rhyming with "plops" of braincases bursting. A quick clip change and black and white of dinner jackets and evening dresses blasted into festive seasonal crimson.

I stepped over a spasming body of a man for whom I'd often bought drinks on my company's tab and hopped to the computer console.

The Jesus Program graphic stared out onto this holocaustal scene, maintaining His serene benedictory air. It may have been a trick of a pixel, but I thought I saw a slightly consternated look appear in His eyes.

I leaned over and kissed His cheek.

Then from my pocket I pulled the Depth Charge program on a hyper density disk, slotted it, and keyed in the command. No crucifixion this time — just a wipe of screen and the "Jesus Program" was gone. The DC program had a rotor-rooter effect, racing through the entirety of the mega collection of chips that constituted this state-of-the-art system and wiping every shred of code out, and all records. I'd already checked — this was the only copy of the JP.

The machines began to shake. Smoke steamed up from fissures. Little flames licked up.

With remarkable aplomb and ease, I stepped to the scientists' office, where all other records and such on the project were kept.

I pulled a small grenade from my pocket and lobbed it. Seconds later, after removing myself from the immediate vicinity, the area was consumed in a ball of fierce destruction.

I skipped over the bodies, careful not to slip in any of the Christmas gore, and ran down the steps and then to the street. It had been cleared, as per plan, except for the black Vauxhall waiting there to drive me to a private jet at Stansted Airport that would whisk me back to the welcoming — uhm — gates of my company in Seattle.

I got in the front seat.

"Damned Libyan terrorists!" I said as the driver accelerated toward my avenue of escape.

He was a heavyset middle-aged Irishman, formerly with the IRA and now with a far better funded organization.

"Yes," he said, eyeing the flames that were beginning to gush from the shattered windows of the building. In the distance, the sound of fire brigade sirens skirled through the aborted Christmas night.

No, Drs. Mary and Joseph, I thought glumly.

The world already has a Computer Savior.

And he is a jealous God.





FILMS

KATHI MAIO

LEARNING TO EMBRACE THE CHAOS

THE millennium approaches, fast apace. And as meaningless and arbitrary as it may be, as an artificial marker of man-made "time," the big flip-over of the global odometer to 2000 *seems* imbued with meaning. Only it means different things to different folks. The optimists—always a minority—think it will usher in the age of Aquarius, or some such Earthly paradise. Many more see it as an invitation to apocalypse.

Fundamentalists of all stripes see these as the depraved end-times. And they view themselves as the sole righteous, anointed for eternal joy. Their demonization of anyone outside their fold is the scariest thing about this millennial age, as it represents a self-fulfilling prophecy for disastrous hatred and strife.

Luckily, most of us don't walk around looking for the mark of the

beast on everyone at the supermarket. Nor are we expecting a New Year's conflagration in a few months, where we, alone, will walk away white-robed and glowing. Still, in these final days of the twentieth century, it's very easy to fall prey to a vague sense of impending doom.

Hollywood knows this. And this is, no doubt, one of the reasons that the disaster film has made a big comeback in the last few years. The winds of *Twister* gave way to the brimstone of *Dante's Peak* and *Volcano*. And this year, it's the comets and asteroids in *Deep Impact* and *Armageddon*. In one sense, this all segues nicely with fundamentalist apocalyptic prophecies. (Armageddon, indeed.) You could call it the studio version of Luke's "fearful events and great signs from heaven."

But although a Hollywood film may tease us with "the end of the world as we know it," since it's a film's job to make us all "feel fine,"

a movie always pulls most of us back from the brink. None of these sf disaster flicks are about a repenting populace being Saved by the almighty, they are about ordinary heroes defying disaster and saving themselves and/or everybody else. At the movies, most sinners live to sin another day. A few of the virtuous even perish. And, in the end, apocalypse is postponed. And life (more or less, as we know it) goes on.

These ritualized science fiction spectacles are meant to comfort us. And they do. Here, the wrath of god (a.k.a. nature's fury) is something we can withstand, outrun, or nuke into nothingness. Bad stuff is external and manageable — with a little luck, and a bit of scientific know-how and technology.

But not all of the perilous forces are Out There; or containable; or subject to technological fixes. No matter what Hollywood tells us, we recognize that much of the turmoil of this age is to be found in the mysterious inner space of the human heart and mind.

Needless to say, that kind of thing is harder to capture on film. (And, in these days of FX-obsessed sf film, few filmmakers would even want to try.) That's what makes a "no-budget" (shot and edited for

\$60,000) first feature called π such a remarkable achievement.

Darren Aronofsky wanted to make a movie about "God, math, and badass Jews." And he went about it in a most unusual way. To finance the film, he and his producer and star asked everyone they knew to give them \$100, with a promise of \$150 back if the film showed a profit. Aronofsky also asked the entire cast and crew (himself included) to sign on for \$200 a day, *deferred* salary, as well as an equal share of 50 points of the film's return.

He took this approach for financial as well as political reasons. And he also did it this way because he wanted everyone involved in his movie to have a personal stake in, and a passionate commitment to, the project.

It worked. For although the low budget unavoidably shows in this film, there is a creativity and vitality to it that far transcends any technical shortcomings. More importantly, at a time when Hollywood-made science fiction films invariably seek to hide their paltry, derivative stories within a steady stream of ear-pounding, eye-blinding action, Mr. Aronofsky has given us a movie chockfull of genuine scientific and philosophical ideas. It's way too much for one movie to

deal with, really. And the issues are far too complex for *any* movie to provide tied-up-in-a-ribbon answers to any of them. But who cares? This is one movie that actually leaves you thinking, and not just stunned.

π , the movie, takes its name, of course, from mathematics. Besides being the sixteenth letter in the Greek alphabet, it is the ratio of the circumference of a circle to its diameter — numerically stated as 3.14.... I must have learned that in school, once upon a time. But I promptly forgot it. (Math is a painful memory I try to keep suppressed at all times.)

There are many people, however, who, completely unlike myself, love π . Are crazy about it, in fact. It's irrational! It's transcendental! And it can be computed into infinity! (As of a year ago, mathematicians at the University of Tokyo had calculated it to 51.5396 billion decimal digits.) It provokes poetry, song, and yearly worldwide celebrations (held, as you might guess, on March 14). There are books celebrating its many splendors. (David Blatner's handsome little 1997 volume, *The Joy of π* , is a good example.) And there is an organization, called the One Thousand Club, which requires its members to be able to recall the first 1,000 digits of

π . (And, yes, since you ask: π recitation is actually a category of achievement in the *Guinness Book of Records*.)

Why all the fuss? Perhaps because π is a very symbol of all that man cannot contain or control. I think Mr. Blatner got it right, when he wrote in the preface of *The Joy of π* : "It has always seemed logical, paradoxically, that we could discover limits to the infinite and could somehow calculate nature. But we were wrong."

I mention all this to you to illustrate that π is, therefore, the perfect emblematic grail for the obsessive pursuit of mathematical truth. And that's what the hero of Darren Aronofsky's movie is all about.

Max Cohen (Sean Gullette, in his feature debut), is a mathematical genius with absolutely no resemblance to Matt Damon's sweet, boyish Good Will Hunting. Max lives, alone — except for a colony of pesky ants — in a Chinatown (NYC) walk-up that he has filled with his own jerry-rigged supercomputer. There, he computes, day and night. Occasionally he is interrupted by a neighbor child (Kristyn Mae-Anne Lao) with a math challenge, or an attractive young neighbor woman (Samia Shoaib) who tries to tempt him into sociability with a plate of

samosas. But neither woman, child, nor tasty Indian treats can break through Max's self-imposed isolation.

He is a man on a mission. And his mission is nothing less than unlocking the secrets of the universe. He theorizes: "One — Mathematics is the language of nature. Two — Everything around us can be represented and understood through numbers. Three — If you graph the numbers of any system, patterns emerge. Therefore, there are patterns everywhere in nature."

Max believes that with sufficient dedication and intelligence, and the correct rate of number-crunches per second, he will be able to tap into the hidden order of this chaotic world. His test case: predicting the changes in that most powerful and complex of man-made chaotic systems, the New York Stock Exchange.

His mentor, an older mathematician named Sol (Mark Margolis), warns him over a shared Go board that his pursuits are foolhardy and self-destructive. But Max can't back off, or slow down. Not after his computer spits out a chain of 216 digits and then dies. Is he on the edge of discovery, or of madness? He isn't sure. He only knows that he is plagued by migraines and strange visions.

And odd characters, too. Two very different, and coercive groups seem to dog Max's every step. One is a gang of investment analysts who are suspiciously well-acquainted with the nature of Max's research. There is nothing hidden about their agenda. They want to control the stock market. And although the primary Wall Street operative, the business-suited and silver-voiced Marcy Dawson (Pamela Hart), starts off friendly enough, before long she and her cohorts are chasing Max through the nightmarish streets of New York.

More puzzling, and seemingly more harmless, are a group of Hasidic Jews who try to convince Max to join their ranks. An unctuous fellow named Lenny Meyer (Ben Shenkman) dazzles Max with gammantria (the mathematical deconstruction of the Torah), but it turns out that Lenny isn't simply looking to entertain a new friend with math parlor tricks, or turn him on to the wonders of sacred geometry. And the Hasids aren't simply looking to increase the numbers of their small sect.

Meyer and his associates are extreme devotees of the Kabbalah. And they are convinced that, whether he realizes it or not, Max's research can break the code of the

secret name of God, ushering the messianic age.

Like the millennial times he lives in, Max is filled with dread, caught between the extremes of fundamentalist religiosity and secular greed. Everyone is questing. They're looking for a magic bullet, a sure bet, a simple equation, and The Answer. Max thought he wanted the same thing. And he was arrogant enough to think he could find it. But, in the end, he learns to forget about superimposing scientific order on his world. Instead, he learns (or *begins* to learn) to embrace the beauty of chaos.

To truly enjoy π , the viewer has to learn to do the same. The film has a scattershot, punk energy — complete with a feverishly effective electronic score by Clint Mansell — that is uncommon, to say the least. It is not for every taste. And it is especially not for those hooked on the Hollywood formula. Although there are striking images aplenty in π , there is little that could be termed "action."

More than any film in recent memory, π brings us inside its hero. We share his hallucinations. And we feel the pounding terror of his migraines. To do this, Aronofsky and his cinematographer, Matthew Libatique, shot the film in vivid

black and white using reversal stock. (Again, with no color photography, this is not a film for those dependent on full-spectrum eye candy.) They maintain, as much as possible, the viewpoint of Max, using a variety of camera techniques, including some that attached the camera rig directly to the lead actor. In so doing, they let us crawl around in Max's distinctly crazed head.

Of course, none of their artsy techniques would have done much good if the actor in the central role hadn't been up to carrying the film. Especially since Max, a self-involved computer geek if there ever was one, is not always the most sympathetic character on the block. But Sean Gulleto gives a fine performance, allowing us to care for Max, even when he seems not to care about anyone — even himself.

Darren Aronofsky has made an unforgettable first feature. Who but a novice independent feature filmmaker would have concocted a film this bizarre, with this much conviction? His on-the-cheap creativity makes you wonder what he could do with a decent budget. It also makes you fear what will happen when he is absorbed into the Hollywood system, as he undoubtedly will be.

Let's hope that Darren remembers, like Max, to embrace the chaos.



The Bard of Avon taught us that Hell has no fury to rival these eponymous women. But enough of Satan's realm—what of our own plane of existence? Robert Grossbach, whose last story for us was the popular "Jew on a Chip" (Dec. 1997), investigates the question from an intriguing technological viewpoint.

Of Scorned Women and Causal Loops

By Robert Grossbach



AT CORNAVIN STATION the rental agency had given him one of the new *Electriques* with the re-designed fuel cells, and he'd accepted it reluctantly, knowing it would not have the pickup of the old gas-driven models. Yes, yes, of course it was a thousand times better for the environment, ten thousand times, but still he liked the feel of the gas pedal, preferred it over the *accelerator*. One more thing to make him cranky, as if the TGV ride from Paris, his sore left buttock, and France's first round World Cup elimination weren't irritants enough.

He drove now on the Route de Meyrin, westbound from Geneva, passing a new outdoor shopping mall, the giant Thompson CSF and IBM buildings, an automated radar speed monitor, and a Citroen dealership, regarding all with a faintly disapproving and dyspeptic eye, which was how he viewed everything, for reasons he'd never cared to plumb. After eight kilometers, he arrived at a hangar-sized building of corrugated metal, situated amidst a scattered complex of structures, all surrounded

by a paved parking lot and double chainlink fence. The sign over the guard booth read ORGANIZATION EUROPÉENNE POUR LA RECHERCHE NUCLÉAIRE, or, as the English and Americans called it, CERN (ignoring in their usual obtuse manner that the first word had been changed from CONSEIL nearly seven decades earlier.)

He flashed his credential at the guard, passed with an indifferent wave through a flimsy looking gate, and parked next to a blue Mercedes. He locked the doors of the Electrique out of habit, and trudged toward the building, upper left hamstring throbbing at each step. On a low hill just beyond the complex, he thought he could see sheep grazing and paused for an instant to squint before moving through the entrance.

He signed in at a long, polished wooden desk, filling in the "Name," "Entry Time," and "Person to Be Seen" columns, but leaving blank the "Purpose of Visit" space. When the young receptionist had finished on the phone, she presented him with a plastic yellow rectangle that identified him as a visitor. "*Ici est votre —* "

"English will be fine," he said.

She nodded. "Here is your badge, Inspector. Someone will be out momentarily to escort you."

He grunted a thank you, then went to stand awkwardly near one of the vinyl waiting-area couches, pausing to knead his eyebrows and temples in a futile attempt to ward off the headache he already knew was inevitable. When he looked up a moment later, a fortyish woman stood before him, wearing a loose blouse and pleated gray skirt.

"Inspector Lagrange?"

Short black hair framed a slightly roundish Kewpie-doll face: button nose, cherub mouth, dark red lipstick, touch of rouge. Lagrange thought her just short of pretty. "I'm here to see Dr. Elizabeth Parkes," he said.

"I am she."

Apparently, his expression did not sufficiently conceal his reactions.

"I do not fit your conception of a nuclear physicist?"

He smiled back. "No, no, it's just...the receptionist said they were sending somebody. I assumed — " He waved his hand. "It's of no importance."

She stared at him bemusedly. "Well then, shall we?" She motioned toward a doorway. "I assume you'd like a look at the experiment first?"

"That would be fine, yes."

She held the door, and he stepped through.

The hangar area was vast; they padded along a blue steel catwalk past a dozen rows of huge, thrumming machines. "Generators," said Elizabeth, over the din. "They feed the superconducting magnets for the accelerator."

"They give me a headache," shouted Lagrange. He now had pain in his head and his ass; he supposed somewhere along the way he'd stub a toe. They emerged finally into the rear half of the building, seemingly empty except for a giant overhead crane suspended from a heavy steel girder. But as they approached the far end, Lagrange suddenly saw that a huge section of floor simply vanished into a cavernous rectangular pit. He fought off vertigo as they stared over the edge.

"Six stories deep," said Elizabeth.

At the bottom, amidst scattered pieces of equipment, tools, and ladders was a structure that looked like two piggy-backed railroad cars. Thirty-centimeter-diameter ropes of cable, numbering in the hundreds, ran from the cars up the sides of the pit and disappeared into boxes of electronics that lined the walls.

Lagrange pointed to a circle on the roof of the top car. "That's where Monsieur Parino entered?"

Elizabeth nodded. "A hatch. Hard to tell from up here."

"And you're absolutely certain there's no other way into or out of the experiment?"

She shrugged. "You should know, Inspector. Your people have been over that structure about a thousand times."

"Not my people."

"You're Swiss? I'm sorry, I just assumed you were French. I know there was some sort of a jurisdictional dispute because the tunnel straddles the border and —"

"I'm with Europol."

Her eyes rose in feigned admiration. "Ah, Europol. Yes, someone said they were sending an expert."

"Hardly an expert," said Lagrange. "Far far from it. But I suppose, relative to my local colleagues, I am perhaps ever so slightly more educated in the area."

"Would you like to go down to make an examination?" she asked. "I'm sorry, but there are no elevators, we'll have to use the ladders."

Immediately, Lagrange felt his buttock spasm in anticipation. "That won't be necessary, I've studied the reports." He indicated an aperture in the side of the pit, five stories below. "That's where the beams emerge?"

"That's the opening into the collider tunnel, yes, but 'emerge' is perhaps not the right word. In operation, of course, the tunnel is continuous through the experiment. An extremely high vacuum must be maintained." Somehow, she seemed to sense his discomfort. "Would you be more at ease in another area?"

"That would be fine, yes," said Lagrange.

They exited the building by a rear door, emerged into bright sunlight. Almost immediately, he tripped over a raised section of concrete walkway, winced as he regained his balance.

"Are you okay?" She reached out to steady his arm and momentarily, quite against his will, he became aroused.

How pathetic, he thought, that the mere incidental touch of a woman could do that to him. "I'm fine," he said. "I strained a hamstring while I was jogging the other day. A warning from nature, I suppose, to stop trying to interfere with her course."

"Now you sound like Giorgio."

"Really? In what way?"

"He was always talking about death. Well, alluding to it, anyway. That is, when he wasn't talking about physics. He seemed to feel he was racing against a timetable. He wanted to get the Nobel while he could appreciate it."

They entered a narrow, two-story building that connected at an odd angle to two other identical structures.

"He was disappointed he didn't get it for the Higgs..."

"You know about the Higgs?"

They walked down an asbestos-tiled corridor. "Not much. I know it's the name given to fields of some sort and also to the particles that presumably transmit them. Higgs bosons, I believe they're called. Goldman found the first one right here and got the prize — when was it? — about fifteen years ago."

"Two thousand three," she said. "Giorgio felt it should've been his."

They entered a small cantina. Candy and Coke machines on one wall. Ten tables and chairs. Microwave oven. Coffee stand.

"This okay?" she asked.

"Anything," he said. "As long as I don't have to hear those generators." They sat at one of the tables, and she brought over some café au lait. He sipped at the Styrofoam cup. "So Giorgio was bitter."

"Oh, of course," she said quickly. "Isn't that *de rigueur* for world class physicists who feel they're being overlooked? Bitter, driven, obsessed, callous" — her voice deepened, her gaze drifted off — "manipulative, cold, self-absorbed —"

"But you were in love with him." Her focus abruptly returned. "As I said, I've seen the reports," he added, almost apologetically. "It was in the interviews."

She shrugged. "I was at one time, yes. I suppose it was common knowledge. Physicists gossip like anyone else."

"And was the love reciprocated?" He could see the hurt ripple across her features, and he leaned forward. "Mademoiselle Parkes, I am truly sorry for what I realize must seem like an outrageous intrusion into your personal life, but I beg you to try to understand my position. Giorgio Parino was perhaps the world's greatest experimental physicist. His disappearance under the conditions of the experiment —"

"Some of us would not call it a disappearance."

He nodded stiffly. He was not quite ready for semantic scientific nitpicking. "Nevertheless, the pressure from the authorities and the public and the press for a complete explanation —"

"Fuck the authorities!" said Elizabeth. "And the public. And the press. And —"

"And the police. Of course," filled in Lagrange, grinning.

She softened, grinned back. "Of course."

He drained his cup. "Tell me about the Higgs."

She pursed her lips. "As you said, a type of field. Still far from being understood. The Large Hadron Collider we have here was meant to investigate it. Current ideas have been expanded from theories first developed in the 1980s and '90s to explain how the electroweak force, which is transmitted by four zero-mass particles, could be transformed into two separate forces, one of which has massive particles as its carrier.

The thinking was — is — that there's some kind of a field, the Higgs, that permeates all of space and that gave particles their masses when the early universe congealed."

"And the collider is able to remelt that field."

"You smash together two beams of protons at seventeen terravolts, you get a hell of a lot of interesting effects."

"Including travel through time?"

Again, she smiled. Then stood up. "Let's walk. You feel like walking?"

He didn't. "Fine."

"I'll show you the Megatek room."

"Okay."

They emerged from the cantina, turned down the corridor. "You know, Lagrange is a famous name in physics," she said.

"Unfortunately, yes," he responded. "So my mother used to inform me practically every day. Even at one time claimed he was my ancestor, although I doubt it. If he was, I'm afraid I'd have been a terrible disappointment to him."

"You were not a good student?"

"I barely managed to eke out a masters at Columbia."

"Ah, so that explains your excellent English: You went to school in the States."

"As I said, my family had hopes. Fortunately, the experience demonstrated quite clearly that I'd never be any more than a third-rate physicist, if that."

They turned a corner. "You must not let others' opinions of you become your own," she said with unusual intensity. "I had to constantly fight with Giorgio."

"He considered you third-rate?"

No answer.

"Was it because you're a woman?"

"He said ..." She swallowed. Muscles worked high in her jaw. "He said I was very good on the details, but that I didn't have the vision to be truly insightful. He said he realized it sounded sexist, but that all the women scientists he'd known seemed to have the same restricted perspective. 'Tunnel vision,' he called it, and then he'd laugh, because of — I don't

know — some private double entendre. He said I was wonderful at poring over data and attending to minute individual tasks and that I shouldn't beat myself to death trying to be something I was not."

"And you didn't, I presume."

"No."

"Did you beat *him* to death?"

They came to a room marked "Megatek," and she paused at the door. "Am I being charged with a crime, Inspector? Is this an official Europol interrogation or a casual conversation?"

Lagrange shrugged. "The answers are respectively, mademoiselle, 'Not yet,' and 'Official interrogation.' I apologize if my manner has been too informal."

She frowned, but Lagrange could see that the gesture was theatrical. "Perhaps I should have an attorney present."

He nodded slightly. "With all due respect, Dr. Parkes, this is not America. There is no Miranda law here, nor any direct equivalent of habeas corpus."

She unlocked the door. "Whatever Giorgio did, he did to himself."

Inside the room were a half dozen scattered computer terminals, a shelf-lined wall filled with black notebooks, a bulletin board sprinkled with particle-collision photos, and finally, in the center, two large machines that looked like three-D video games. It was in these, the Megateks, that computer enhanced, three-dimensional recreations of the experiments in the collider pit could be displayed.

"Some people say you could have stopped him."

"I tried. He wouldn't listen."

"But it was you who threw the switch."

"At his order. At his insistence. Does that make me a criminal?"

"Perhaps. There are several dependencies."

"Such as..."

"Such as what exactly has happened to him. Such as whether you knew the consequences of his order."

"He was Director General of CERN, my immediate supervisor."

"Nevertheless, if your direct superior commands you to fire a loaded gun at his head and you do it" — he held out his hands — "the law says you are guilty of murder. And no matter that he is an arrogant, patronizing,

womanizing bastard." He paused. "Now, did you know the consequences of throwing that switch?"

She inhaled deeply. "I..." She shook her head. "Giorgio had so undermined my confidence I couldn't be sure of anything. I doubted my own mind."

"So you weren't certain?"

"No."

"But you are more confident now."

"I am more confident now, yes."

He sat down at one of the Megateks, fiddled with the joystick. "How did Giorgio first get the idea about time travel?"

She leaned over one of the computers, began punching a few keys. "Here, better to show than tell."

A moment later, at the center of his machine's holographic projection volume, a schematic display of a detector appeared: cylinder for the central portion, larger cylinder for the electromagnetic calorimeters, rectangle for the hadronic calorimeters. She punched another button and, instantly, thirty or forty multi-colored spaghetti tracks shot through the display.

"A reproduction of event 1431," she said. "The detector assembly surrounds the location where the protons collide." She hit another key, and all but a half-dozen of the tracks disappeared. She moved a joystick to enlarge the display. Three-inch-long traces fanned outward from a single point.

"A jet," said Elizabeth. "Not that uncommon. The energy was 11.3 terravolts. Now" — again her tapered fingers flew over the keys — "let me show it to you as time passes."

The traces slowly extended in length.

"Each inch on the display scale takes about .2 picoseconds."

Suddenly, at about four inches, each trace seemed to double, joined by an adjacent twin, which streaked alongside it for about an inch and a half before disappearing.

Lagrange turned, brow knit, palms up. "I'm sorry, I don't understand."

"No one did," said Elizabeth. "Particles identical in every Fermi number — I know it's impossible — had appeared from nowhere alongside the originals. Giorgio finally made the mental leap."

Lagrange's mouth opened in a silent Ah. "There were no new particles. The originals simply moved back in time to join themselves at an earlier instant."

Elizabeth nodded. "The Higgs field had melted, mass had disappeared — and popped back about .3 picoseconds. The calculations confirmed there was a chunk of energy missing; Giorgio called it tau-sub-e, the temporal component."

"A totally unexpected effect."

"Totally. And, of course, Giorgio immediately recognized the macroscopic ramifications."

Lagrange shook his head.

"The effect had occurred over a linear extent of nearly a millimeter, but there was no reason why that could not be expanded arbitrarily. Apparently — Have you read his 2017 *Physical Review* paper?"

Lagrange said he had, but with very limited comprehension.

"Apparently," she continued, "as the universe cooled, the Higgs field congealed into microscopic domains, separated by walls like, mmm..." As she searched for an analogy, a tiny crevice appeared between her eyebrows; despite himself, Lagrange found it charming. "Like that plastic bubble paper they use to wrap gifts. The colliding beams popped the bubbles, releasing their energy." She raised her eyebrows. "Anyway, Giorgio did the calculations for how to scan the beams so the bubbles would coalesce into a volume of arbitrary size."

"And inside the volume," ventured Lagrange, "whatever was there would move backward in time?"

She nodded. "Giorgio said they would have to give him two Nobel prizes, one wasn't enough." She grinned. "I suggested he should hold the prize a few minutes, then move back in time and stand alongside himself." The grin vanished.

"He took you seriously."

"Not immediately. His first priority was to go around the world, giving speeches. You understand, he was an incredible hero to physicists everywhere. He must've visited a hundred different countries."

"While the rest of the staff..."

"Eighty of us. Studied the effect, repeated it, tried to understand it, tried to extend it. Eventually, we built a six-cubic-meter test chamber,

used a magnetic field to suspend and levitate it in a vacuum — and sent it back approximately 3.3 picoseconds."

"You must've been ecstatic."

She gave a little snort. "I was disturbed. I felt there was something fundamental we were missing."

"And that's when you gave the speech."

She nodded. There had been an assembly of the entire staff to discuss recent events in time travel. A conference room. Ninety-six yellow chairs in six even rows, blackboard in front, TV monitors lining one wall. Giorgio had taken a sub-orbital from Tokyo to attend.

Seven or eight of the physicists had gotten up to speak, discoursing on this or that arcane area, making recommendations, complaining, fending off Giorgio's staccato questions and comments. Finally, it was Elizabeth's turn. She took the low podium, hesitantly began to talk, showed several prepared slides. Unfortunately, she could not quite conceptualize what was bothering her, and when you could not quite conceptualize, Giorgio jumped down your throat.

"So the photographs were fuzzy," he rasped. "So what. Clean your camera lenses."

A chuckle rippled through the audience.

"They were clean, Giorgio. And the focus was checked."

"So what is your point?"

"There...there is some spatial effect associated with time travel. Perhaps it is second-order, but — "

"With all due respect, Elizabeth, your data hardly justifies the conclusion. Frankly, I wouldn't even call it data."

"But the chamber...My measurements show it shifted nearly a millimeter — "

"Oh, so we're measuring distances now? Very good. Did you use a wooden ruler or a metal one?"

More laughter, much of it strained.

"I used a laser calipers."

"Ah, pardon me. I underestimated your technical ability." Openly, savagely patronizing now. "Elizabeth, we are talking about a six cubic meter volume, subject to quite substantial forces here. Why are you surprised by a minuscule movement? Why do you think it's important?"

Have you checked the magnetic field servos? Have you checked the uncertainties in the energy budgets?"

"I tried, but I couldn't — "

"Have you done any supporting calculations? Any math at all? Any *thinking* at all before you came up here with these details? Details are fine, Dr. Parkes, but really, can't we just get a little perspective on what is not a waste of time?"

White-faced, choking, Elizabeth had whispered a "sorry" and fled the stage.

Lagrange leaned back. "He humiliated you."

She nodded. "In front of everybody," she whispered.

"You left the conference?"

"Of course. I studied the minutes afterward."

He pictured her, alone in some small room, a high school girl who'd missed the senior prom, reading about it instead in some dry secondhand report. He wanted to hug her, tell her he was a kindred soul in personal disappointment.

But almost as if reading his thoughts — and rejecting them — she drew herself up. "I was angry. I felt" — her eyes blazed — "I may be an inferior scientist, but sometimes an inferior does good work. A hack writer comes up with a great novel. A poor soccer team beats a much better one." She thrust out her chin. "An average detective has a magnificent insight that cracks an impossible case."

Lagrange nodded. "So you felt you were onto something and were being ignored."

"More accurately, I felt Giorgio was missing something. I guess, at bottom, what was really bothering me was the old grandfather paradox. You know, somebody goes back in time and kills their own grandfather, so that they were never born...which means they weren't around to go back in time."

Lagrange crossed his legs. "You didn't buy the many-universe theories? As I understand it, the concept is that when someone goes back in time he is really travelling to another universe, which is identical with the first up to the instant of his arrival, but different thereafter because of his presence. That way — "

"In the universe he leaves, his grandfather is alive and he is born. In

the one he enters, his grandfather dies, and he isn't born." She shook her head. "That was Giorgio's explanation and most of the others'. The melting of the Higgs field produced closed timelike curves, CTC's, between universes." She chuckled mirthlessly. "To me, it sounded like magic. Invoke enough different universes and you can explain anything. It wasn't true understanding. And I had my experiments. There's something that working with actual hardware gives you — I know it sounds mystical — but there's something that world travelers get out of touch with."

The door opened then and two men entered, dressed casually in slacks and open-collar shirts. Lagrange stood up, withdrew his wallet, and flashed his badge. "Gentlemen, I'm sorry, but I must ask you to leave. We'll only be another five minutes."

The men seemed uncertain, but eventually departed.

"You know them?" asked Lagrange, when they'd gone.

"Not well," said Elizabeth. "The younger one's been here a year, some kind of mathematician from Collège de France. The other fellow I believe is Russian, specializes in muon detectors."

"Tell me when Giorgio got his bright idea. Do you think it was always in the back of his mind?"

She shrugged. "I doubt it. I think it was one of those spur of the moment things, one of those flamboyant I-am-the-boss megalomaniac power moves he loved so much."

"Then it was for the benefit of the Japanese?"

"Partly, yes. They had sent in a large visiting delegation. They were talking about a huge funding increment — that's what it's all about in high-energy physics, as it's always been — and Giorgio was anxious to make a grand impression."

"And that's when you picked to tell him you thought the experiments might not be safe." He raised his eyebrows. "Awkward timing, no?"

She bristled. "It wasn't 'timing' at all. I broached it to him as soon as I felt I had a solid basis for it. A couple of the Japanese just happened to be in the room. Should I have whispered?"

Lagrange didn't answer. "And your concern was — "

"The small spatial dislocations I'd mentioned earlier. I was worried about what might happen if an object interpenetrated an earlier version of itself."

"But Dr. Parino did not share your anxiety."

"He was furious with me for bringing it up. As it turned out, he was right. There was a problem, but that wasn't it."

"Nevertheless, he decided to demonstrate the process safety by using himself as the subject of an experiment." Lagrange began tapping his foot. "How did he justify that?"

"He didn't, really. In his position, you didn't have to. Oh, later on he offered up some mumbo jumbo about taking a bit of future information into the past, something that required a human mind, in order to test or dispel the so-called knowledge paradox. An example would be paintings brought from the future to the original artist in the past, who copies them. The process eliminates the creative work. Anyway, no one considered that seriously. We all knew Giorgio was just being Giorgio."

"Was it his idea to go a full five seconds backward? Wasn't that trillions of times longer than you'd sent anything else?"

"It had already been shown that the regression in time depended exponentially on the rate at which you melted the Higgs domains, not the collision energy. It meant only that we had to increase our luminosity and scanning speed. Giorgio claimed five seconds was the minimum duration required for his future self to record and bring back a number they could be photographed with next to a sealed clock."

"The Paris closing gold price."

"Yes."

"What did the other physicists think of his plan?"

"That he was entirely crazy, of course. But it was a genius move for publicity."

"And were they worried, too, about safety?"

"Oh, most agreed it was rash, but no one could justify their feelings in terms of specifics." She removed a small mirror and some lipstick from a tiny purse she carried. "Giorgio was not the kind of person who inspired feelings of protection."

"Except in you."

She stopped applying the lipstick. "I was up the entire night before the experiment. That was when I figured everything out."

"You could see him from the control room?"

She nodded. Lagrange remembered the tape — control room activity

was always recorded. Sixty television monitors. Two dozen physicists sitting at consoles, hunched over screens, harried, looking up to scan a readout, to shout something, to scream a command. On one of the consoles, Giorgio strides confidently toward the pit in the hangar floor. Underground area fifteen, or UA15, the time travel experiment. He says something to one of the Japanese visitors and the man smiles. Giorgio is wearing an orange jumpsuit, a white lined pad under his arm.

WAITING FOR A COMMAND scrolls down one of the monitors. *WAITING FOR A COMMAND*.

"Is the counter working?" shouts a physicist.

"Firing away," says another. "I got it in the logbook."

A mechanical voice announces, "Proton check," and three of the screens fill up with numbers and graphs. A moment later, the voice declares, "SPS ready," and more numbers tumble onto additional displays.

The camera catches Elizabeth, sitting at the main control panel. Her face is gaunt, her eyes wide. She uses a microphone to address people in the hangar. "Giorgio, I beg you not to do this. I beg you."

Giorgio waves and smiles, pats the Japanese on the shoulder.

Lagrange shook his head. "Why did he make you the SLIMI?" SLIMI was Shift Leader In Matters of Information.

Elizabeth spoke in a near whisper. "It wasn't that unusual. I had done it before." She inhaled sharply. "I suppose it was further punishment."

Lagrange recalled the final moments. Giorgio descending the ladder into the pit. Signal light going on indicating Time Travel Chamber secured. The mechanical voice saying, "Beam scanning sequence ready," and Elizabeth making one futile last attempt.

"Giorgio, please...please..."

And the response: "Is the gold price in? As soon as it comes in, close the fucking switch and read me the fucking number when the counter goes down to two. I order it, Elizabeth."

She hesitates several seconds, looks around at the other physicists, whose expressions are maintained at careful neutrality. A man wearing headphones approaches her and whispers something. She delays another moment and then, finally, chest heaving, she presses a key. The mechanical voice says, "Cycle one," and begins a countdown from nine to zero.

At two, Elizabeth reads in the Paris close in New Dollars per ounce, 29.32. At zero, small dips appear on lines crossing three of the monitors.

Even in the hangar, there never was any sound. When the Time Chamber disappeared, it happened in vacuum; no air was present to rush in.

Lagrange stood up and stretched. "You knew immediately, of course."

Elizabeth nodded. "All instrument readouts from the chamber went dead."

He began to slowly pace, ignoring the hamstring twinges. "You knew where he'd be?"

"Not exactly. I knew how far, but not precisely the direction."

"So it was more or less luck that Farside II happened to be pointed toward that sector."

"I suppose. Chances were *some* telescope would catch it."

"Your distance was correct?"

A faint grin. "Within experimental error."

"Your so-called equivalence principle..."

She puffed her lips. "It seemed reasonable. Travel through space requires time, therefore, travel through time might very well require space."

"It resolves the grandfather paradox."

"It occurred to me the night before the experiment. You can't kill your grandfather if you can't reach him. If you travel through time, you can't affect anything before you left — or have anything affect you — if you're flung far enough away from your original position."

"But how far is 'far enough'?"

"In general, the speed of light multiplied by the time interval. Nothing could travel back fast enough to cause a problem. The universe could protect itself from inconsistencies and non-causal events, it didn't need other universes to help."

He pondered a moment. "But what if you're transported right near your grandfather, whom you immediately murder?"

She shook her head. "Either he'd have already sired your parent, so it wouldn't matter, or he couldn't have been your grandfather. In tech-speak, in the time interval you went back, no concatenation of world lines could traverse as much distance as you did."



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Lagrange was content to grasp the essence. "So, therefore, when Monsieur Parino was popped back five seconds in time, in space he was thrust — "

Her eyebrows rose. "A million and a half kilometers."

Lagrange gave a low whistle. "Dr. Parkes, thank you. The interview is officially concluded. If you could see me back to UA15..."

She stood. "Of course."

They exited the Megatek room. The two men who'd entered before were waiting outside and eyed them venomously as they receded down the hall. "So tell me, Inspector," she asked, "am I to be charged?"

Lagrange looked at her alongside him, pursed his lips. "Well, that is not for me to decide, mademoiselle. I only make a report." He could not keep a straight face. "But I think not." At a corner, he dared take her arm. "I think not."

He had heard talk that it was she now who might get the Nobel, sharing it with the departed Giorgio for "the Parkes-Parino principle."

"Have you seen the actual pictures from Farside II, Inspector?"

"Oh yes," said Lagrange. "Quite beautiful, in an eerie sort of way." He tried for a moment to imagine himself in Parino's shoes. There was a porthole in the chamber and he undoubtedly had looked out. Lagrange wondered if he'd been able to see the Earth from his position, how small it must've appeared from a million kilometers beyond the moon, how resplendent amidst the jeweled background of scattered stars, how achingly, utterly unreachable... "The glare made the chamber look almost like a comet."

"Well," said Elizabeth, "there is a fair amount of energy associated with temporal re-entry." An impish expression crossed her face. "And, of course, Giorgio always was brilliant."

Unprofessional as it was, Lagrange laughed.



The board members of The Modern Library recently voted Ulysses the most important English-language novel of the Twentieth Century. This new story from Ray Vukcevic makes me wonder what would have won a similar poll taken in 1898! Would Wilkie Collins have won, or perhaps one of Charles Dickens's works! Or would Mary Shelley have copped top honors! Would Victor have wanted the spoils!

Rejoice

By Ray Vukcevic

THE AIR IS SO COLD AND clear and the sea so calm and there, just there, if you shade the arctic sunlight from your eyes, you can see

a flat-topped chip off an old iceberg floating in an otherwise empty expanse of blue water, and on the ice a moocow, a huge dog, and two naked white men engaged in Greco-Roman wrestling. Off to one side, leaning, a red-lettered sign on a stick in the ice like maybe someone got tired of picketing, says Cease Co.

Mister make the passengers take turns, shoo them from the starboard rails, scatter them like chickens squacking squabbling holding onto their flowered hats and fedoras, waving handkerchiefs, stretching up their necks to look; get them back, I tell you, otherwise they'll tip us, and while you're at it, sound the fog horn, blow the whistle, ring the bells, and come about for a rescue.

Before we could pull them from the ice, one of the combatants leaped onto the cow and rode it into the icy ocean. The other, along with what turned out to be an Irish Wolfhound with unusual front limbs, we were

able to get aboard. The rescued man, a Genevese of some education who had most recently traveled to these northern latitudes through the Americas, was soon persuaded to tell his ghoulish tale of reckless creation, unbounded pride, unbearable despair, frustrated revenge, and unfinished business.

The dog he introduced as his faithful assistant and companion, Mucho Poocho. All in good time, he said, when we wondered about the dog's long black evening gloves.

Everything depends on the past, I told her, he said, and we said how true how true and smiled encouragement and made sympathetic noises and put out tentative fingers to touch him lightly on the arm, the head, the back of the ear, the knee, the anus, the navel, the left nostril, go on and on, you're safe now, trust us, be calm, talk.

Blessed be the reanimated, I said, he said, and she said what is this sweet cream of consciousness; this woman, ward of my father and my bride to be, dear Elizabeth who would have to get to know her way around the laboratory and quickly too if we were to have any chance of happiness, especially now on the very eve of my great achievement.

I wanted to show her everything. Witness this I said, yes, give me your hand, touch this machine with all the black knobs and buttons and levers and gauges. Look at all the hoses. Look at the dark hopper. The spark. Watch out! Touch the rough iron crank. Yes, that's it. It hums and hums and pulses. Quite warm, yes. It has taken years of research, years of trial and error, cycle upon cycle of try/fail to bring this machine into existence. So many high hopes dashed.

The immediate ancestor of this machine was a simple reader, a device designed to appreciate Latin utterances which you would enter from a keyboard and which it would display upon a screen. I can see you're wondering how I knew the machine really appreciated the Latin. Well, I would ask it, of course. I would say, for example, so what do you think of ogitocay ergoay umsay? And that most excellent but primitive machine would reply, oh wow that last Classic Latin Utterance was really something Else!

Proving and providing and paving the way for the current work which shows beyond all doubt that this written record, I slapped the revered volume and dust rose and she sneezed, is composed of such exquisite detail, such esoteric imagery, such private symbolism that it is not simply

a book by J, dead all these many years, but rather is J himself!

How can that be, Victor?

It's all here, I said, the whole ball of wax, from soup to nuts, liver and lights, every last scrap, the works, his very essence.

I can bring him back.

This book is a symbolic map of his mind and can be reinstalled now that the proper technology is available.'

I've only to pop the book into the hopper here and hook up the hoses and crank the crank and the corpse will dance again darling put out your hand and wake the Finn again.

Oh my, yes, she said, and we said what she said, and he said, so encouraged by this realization, this sudden spacklesparkle in dark eyes, you know we know, I swept the sheet from the body.

You can't imagine the trouble I went through to get the parts. Knocked together from boneyard bits and pieces picked up at the sites of auto accidents, I sewed a lot of it together myself.

Ugg, she said.

Oh, we're not done, I said, we're definitely not done. We still have to idandify the body, I said. Mucho! Bring me the pearls and the red high heels! I pushed at the cheek of the corpse with my finger but it didn't push back. What would you think of a spot of rouge?

Rouge is nice, she said.

And this, I said, and put a small wrapped package next to the body. What is it?

A mustache.

I peeled back the waxed paper and she leaned in close to look.

So small, she said, one might even say, prissy.

But just the thing, considering the rest of the getup. If it ever gets here. Mucho! There. Just look at how it seems to anchor the nose.

I think you've got it upside down.

Quite right. Look now, isn't that nice?

My assistant ran in with the pearls and shoes, and Elizabeth grabbed my arm and hissed in my ear, my god that dog has hands!

Mucho Poocho is also an early model, I said, he said and reached out a hand to the Wolfhound who snarled and stepped to the rail and stood gazing out at the gray sea.

It's not like you're born knowing how to put bodies together. Feeling

a little defensive, and more than a little put out at the hangdog look on Mucho's face, I snatched the red shoes from his hand and fitted them onto the feet of the corpse. The sudden color chased away my irritation and I pulled the head up off the table and draped the string of pearls around the neck.

Next we hook up the hoses, I said.

So in the name of the bladder and of the bones and of the doily moist upon his head, be quiet, Elizabeth, it is not peeing on you, and hold still, that one goes there yes, push, push! Help her Mucho. Our lad's on the way. Hold this now. And this while I crank out a new song for a new age and a new King of the Yeast.

Oh, look, Elizabeth, can't you see the body becoming more inwardly mobile?

I cranked the crank, and the machine chewed pages, and the body moved like a fleshy sack of puppies. Sparks danced from every silvery surface in the lab and our hair stood on end and Mucho Poocho howled a long low Irish howl of lost green days and lost green places.

The body sat up.

Telegram for Mr. Juice!

I knew it, he cried, I knew you couldn't start the melodeum without me, not without me, you wouldn't, you couldn't, not without me. Two thousand and fun! Oh look at all the pretty lights! I explode from the wilderness, your Dudeoronomy daddyo, all dancing shoes and swinging pearls, with a new message to be fluteful and signify! But you want to know about, you say you're just wild about, you say you cannot live without your neither shall, neither shall, neither shall nots. And I say knock it off, cut it out. Cease Co. is talking new rules, a whole new policy. In our winding down, we are winding up. This time the rabbit hole opens into a new century where everyone talks the talk now that Mr. Juice is loose.

He ripped the hoses from his body and swung his legs around to dangle over the edge of the table, and the sun suddenly tossed through the skylight a horseshoe halo around his head, and he pulled at the hoses and dragged the machine to the table and picked it up and threw it across the room where it shattered into twelve inthesink pisces. It'll be better than Dracula's nightout, he said, it'll be wilder than a piece of Mississippi pie from Mr. Chew Chew.

His noodlerumble headnoise, the horrible sound of greaseless wheels turning and turning and turning, shook the walls and made my beakers

jitterbug rattled my test tubes my retorts as he rose on jellyjuice legs and spread his arms wide and grinned his fair-weather grin and said what you seize is what you get and said ad albiora alba sanguis agni drink my blood in a cut crystal goblet liberally laced with vodka and stirred with a stalk of fresh celery. He held out a dotted palm and said use this missing period at the very end of things.

He took his first step, then another, monster moving across the scrubbed laboratory floor toward us. Elizabeth took my arm and huddled close. Mucho hid behind us but still peeked around my leg.

He'd seen us at once, but now he seemed to be really looking at us and I could see my error written large on his face. Something had gone terribly wrong.

A certain cruel cunning came alive in his eyes, and he questioned me closely, saying, what is that you've got there, my cold mad faery father? He took Elizabeth's arm between a thumb and first finger, very plump, in her slopery slip, my mouseling, little frogchen, touch me with your girlick breath.

I put Elizabeth behind me.

Make me one of those, he said. He could look right over the top of my head and I had no doubt what he meant. I want one of those.

It was easy to see that the experiment had failed. Maybe everything necessary had not been in the book after all, or perhaps my machine had simply failed to extract it all. Or maybe you never know what you'll get until you get it. In any case, I had created an abomination, and now he wanted me to make him a bride.

Never, I said.

Maybe I'll take that one if you won't make me one of my own, he said and lowered his chin and looked up at me like a buffalo calculating a charge.

Leave her alone, I said.

Mink you, Pop.

Oh yeah, well you can just read my mind!

He slapped me to my knees, grabbed me by the shoulders and spun me around and got me around the neck in a wrestling hold from which I had little hope of slipping. Help, I shouted to Mucho Poocho. Attack! Kill! Mucho hunkered down on the floor with a whimper and the monster snorted.

Shall we fiddle with fido?

Not fido, I told him.

Tease fido, eh tease fido, eh eh tease fido.

Mucho put his hands over his eyes, he said, and we all looked at the dog who had been looking back at us over his shoulder but who now looked back out to sea.

It not my job to make you feel comfortable, the monster said, and we said maybe he's got a point, lazy poach dogs, the lot of us, and he gave my neck a twist and tossed me to one side.

Perhaps somewhere in his dark semisubconscious he had some feeling for his creator that constrained the twist and left my neck unbroken. Even so I was sorely stunned and quite unable to help Elizabeth who scooted away from the brute in little fits and sneezes.

She avoided him until she reached the wall, then he grabbed her, and she crumbled like a dried flower in his fingers and he looked around in surprise like what happened is that all there is how could she be so fragile this is all so embarrassing.

Birds darkened the skylight and beat the glass with their black wings, thunder sounded, and a cold wind found every crack and stirred my notes, and tossed my hair, and Mr. (call me Cease Co.) Juice blew CEO cigar smoke from his wide nostrils, said we are the Doggymen, and leaped into dance, lifting his knees high happy grape stomping goofy grin, this sad patchwork graveyard doll, celebrating something foul, and dropped to his knees and scrambled bugfast across the room to me, ripping at my clothes, dogcurious nose and doggy lips in the crack of my ass, blew me up justlikethat with smoke and I floated away, a fat macey man balloon belching smoke rings and drifting upright then drifting upside down.

The skylight shattered and black birds like Brimstoker bats swarmed into the lab and settled everywhere, mostly on Elizabeth.

May you have a million years in hell to think about what you've done, I said.

It's the Count who thinks, he said.

I'll have my revenge.

Eat your selfish, he said, it will be cold comfort.

And then he was gone and I swam down to Elizabeth and shoed away the butcherbirds and read the note written on the bottom of her foot: cheep. When had the monster found time to defile the body?

Struck by a sudden suspicion, I sat down on the floor and pulled off my boots. Yes. Notes on the bottoms of both feet. On my left foot, most significantly, a quote from the book itself: I am speaking to us in the second person. On the right foot: Direct quotes from the book will henceforth, both forward and backward in time, be printed in a holy color that only true believers can see.

So you will agree there was nothing I could have done but hound the monster to the very ends of the Earth, and that is what has brought me to these icy wastelands, he said and put his head down on the deck and died like the easter bunny you've hugged too tightly and we said but hold on a moment, we keep getting the monster and the doctor mixed up. Mucho Poocho spoke then, said, so just who do you think rode the moocow into the sea? सु

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Lisa Tuttle is the author of such novels as Familiar Spirits, Gabriel, and most recently, The Pillow Friend. Her most recent book is an anthology she edited, Crossing the Border, which has just recently been published in England.

Her new story, like Robert Grossbach's (and Esther Friesner's, for that matter), features a woman whose love life hasn't been all she'd like it to be. But how come her friends don't have such troubles?

Tir Nan Og

By Lisa Tuttle

PEOPLE CAN CHANGE.

People *do*. But some things remain the same — like my love for you.

Once upon a time, when I first fell,

I told you what we could have together was not exclusive and would not last forever. I never used the I-word, and I drew away a little, disbelieving or offended, when you did. I told you, quite honestly, that I had no desire for children, and no use for a husband of my own. I was quite happy to share you with your wife.

It's not surprising if you never understood how much I loved you when I took such care to disguise my deepest feelings. I was a woman with a past, after all. A woman of a certain age, happiest living on my own (well, with a cat) and with plenty of lovers already notched into my belt.

I was past forty when I met you, and the easy-loving days of my youth, when the times between men were measured in days or weeks rather than months or years, were gone. I had been celibate for more than six months when I met you. I was feeling a little desperate, and I fell for you hard.

You probably won't believe that, if you remember how hard I made

you work to get me. Once I saw I'd caught your attention — the space between us seemed charged, remember? — I became distant, ironic, cool. I treated you with a casualness that bordered on the insulting. I was so desperate to be wanted that I didn't dare let you suspect. Nothing drives people away more than neediness. And then, after we had become lovers, once you were well and truly caught, I guess it became a sort of habit, the way I was with you, as if you were an irritation to me, as if I suffered you to make love to me now and again as a very great favor.

But our affair went on for nearly seven years. Think of it. And eventually, our positions became reversed. I was no longer the less-loving, the more-loved — that was you. You grew tired of my undemanding presence, and called me less, or made excuses at the last minute to cancel a date. Did you really think I wouldn't mind? That I might even be grateful to lose you? That it wouldn't nearly destroy me?

Well, as I said before, people change. I might have shrugged and cut my losses — dropped you before you could formalize our break — and bounced back in my thirties, but, pushing fifty, the loss of you was the loss of the last of my youth, practically the loss of life itself.

I was surprised by how hard it hit me. If I couldn't win you back, I was going to have to learn some new way of living, to cope with my loss.

I thought about my friends. Over the years that once large throng of independent single women who had comprised the very core of my city, my emotional world, had been whittled away by marriage, parenthood, defection to other parts of the country, and even death. Three remained, women I had been friends with for nearly thirty years, whom I saw regularly and thought of as "like me." Janet was an artist, Lecia was a writer and Hillary was a theatrical agent. We had similar emotional histories and similar lifestyles, in our small apartments with our cats, in love with men who saw us in the time they could carve out from their real lives with their wives and children elsewhere. Over the years we had kept each other going, cheered and commiserated with each other, staying loyal to a certain vision of life while the men, the cats, the jobs and other details changed.

Now that I thought about it, though, I realized that I alone of the sisterhood still had a lover. The other three were all "between men" — and had been for at least two years. What's more, they seemed content. In the

old days, celibacy would have been a matter for complaint and commiseration. I couldn't think of the last time we'd had a good moan about the perfidy of men, or a plotting session devoted to fixing up someone with Mr. Right. Bits of subliminal knowledge, memories of certain looks, words unspoken, hints, fell together in my mind. I scented a conspiracy. They knew something that I didn't. And I needed help.

I went to see Lecia. Our friendship was based on straightforwardness, intellectual discussions, a liking for the same books, an interest in both philosophy and gossip. I felt we were a lot alike, and I knew I could be straight with her. When we were settled with our cups of decaffeinated *latte*, I asked if there was a man in her life.

She chuckled and gave me a funny, assessing look over her cup. "No one except James."

James was her cat, purring in her lap. Lecia lived near Washington Square, and the cat had turned up in her life a few years earlier just after she'd embarked on her project of reading or rereading the entire works of Henry James.

"How long has it been since you split up with...?"

"Three years."

"And there hasn't been anybody since?"

She shook her head.

"And it's all right? You don't miss...all that?"

Her mouth quirked. "Do I look frustrated?"

I gave her a careful inspection and shook my head. "You look great. Really relaxed. Is that the yoga? Hormones?" Lecia, who was a few years older than me, had elected to go for HRT when the menopause hit.

She chuckled. "I think it's contentment."

"You do seem happy, which is hopeful. But — wasn't it hard at first?"

"What's all this about?" she asked. "William? Has William — "

I shook my head. "Not yet. He hasn't said anything, but...I think he's met someone, or if he hasn't, he's looking. He's tired of me, I can feel it."

"Poor baby."

She sounded so detached, as if she'd never had to worry about being left by a man in her life. It annoyed me, because I remembered when things had been otherwise. Three years ago. What was the guy's name? Jim. His marriage had ended, his affair with Lecia continued, and then he'd been

offered a job in Albuquerque — and he'd taken it, just like that. Not that she would have, but he didn't even ask Lecia if she'd go with him. She had been devastated. Looking at her now, remembering her face distorted with tears and the sympathetic tension in myself, I could hardly believe it was the same woman.

"How long did it take you to get over Jim?" I asked. "Did you just decide to give up on all men after he left?"

"Something like that. I decided...I decided I'd never be at the beck and call of another man. I was going to be in control from then on, and get what I wanted, take what I wanted — ouch!" James went flying off her lap. Lecia put her hand to her mouth and licked the scratch. She grinned crookedly. "Well, of course, there's got to be give and take in any relationship. There's bound to be conflict sometimes. But why let *him* make all the rules, call the shots, decide to leave you?"

"Are we talking about me or you? I mean, you said — *are* you seeing someone?"

She wouldn't meet my eyes. "You see me as I am, a woman alone except for her cat. And her women friends. You're the one with man-problems."

"And you've solved yours. So what do you advise me to do? Drop him before he drops me?"

"Only if that's what you want."

"It's not. I want *him*." To my annoyance, tears came to my eyes. "And if I can't have him, well...then I want to be happy without him. The way you seem to be." I pressed harder, trying to make her acknowledge me and my right to know. "You and Janet and Hillary...you all seem so content to be alone. What's your secret?"

She looked at me, but there was a reserve, a withholding, in her eyes. "You should get a cat; then you wouldn't be so lonely."

"I have a cat."

"Oh, yes, I was forgetting Posy." She looked across the room at James, who was sitting in the corner washing his privates. I looked at Lecia's face, which had gone soft, dreamy and sensual, and suddenly I saw that face on a woman lying naked on a bed, with the cat between her legs.

The grossness of my imagination shocked me. I felt too embarrassed to stay longer. Lecia's serene contentment certainly didn't have its source

in bestiality. I was agitated not only by the unwanted pornographic fantasy, but also by the certainty that there was something which Lecia did not trust me enough to share.

I didn't go home when I left her, but instead walked down to Tribeca, to the newish high-rise where Janet had her apartment. It was still Saturday morning, and I was betting I'd find her in. She was, working on one of her intricate black and white illustrations. Although she was trying to make a deadline, she seemed pleased for an excuse to take a break.

"Red zinger, lemon and ginger, or peppermint tea?" she asked as I followed her back to the kitchen. Grey the cat was sleeping on top of the refrigerator. He opened one eye to check us out, then shut it again.

"Red zinger, please." I watched Janet closely as she made the tea. She was slim and strong and she moved lightly as a dancer, humming under her breath. If I hadn't been there she would probably have been talking to herself, I decided, but apart from the scattiness which she'd always had, she looked serene and positively bursting with good health.

"Do you mind being celibate?" I asked her.

She looked at me sharply. "Who says I'm celibate?"

"Oh. Well, when was the last time you had sex?"

Spots of red appeared high on her cheekbones. "That's kind of a personal question."

"I know. I thought we knew each other well enough after all these years to get kind of personal...." Janet was one of the most highly sexed and sexually experienced women I knew, and she'd never been one to keep quiet about the most intimate details. She'd said nothing to me about sex or even romance for so long that I had assumed that there'd been no men in her life since the disappearance of Leland.

"Let's go sit on the couch."

"Goody." When we were settled, I said, "So there is somebody? What's the big secret? Who is he?"

"Do you have some reason for wanting to know? Apart from prurient curiosity?"

I laughed. "Prurient curiosity was good enough in the past. Look, as far as I knew, after Leland dumped you there wasn't anybody. For, what is it, two years?"

"Not quite."

"Whatever — in all that time, as far as I know, you haven't gotten involved with anybody else, and it seems like you haven't wanted to, either. Same as Lecia. You seem so calm, so happy. I want to know your secret, because I have this awful feeling that William's fixing to dump me, and the way I feel now, it'll just kill me. If I can't keep him, I need to know how to survive — more than survive — without him."

Her eyes searched my face. "You love him?"

"Oh, God. Yes. More than anyone I've ever — yes."

"Could you live with him?"

I hesitated. "I don't know. It's never been an option. He's tired of me, anyway. If I pushed him, now, or tried to make him choose between me and his wife, I'd lose him for sure. I can put up with sharing, with uncertainty — I've done that for years. If I've lost him, though — what I really want is to be okay about it. Like you and Lecia and Hillary. You seem so together, like you know something. You do, don't you? There is a secret?"

She gave the tiniest nod, then shook her head as if frantically trying to cancel it.

"There is! Oh, God, I can't believe you know something and you haven't told me. You and Lecia — I thought we were friends! What did I do to you?" We stared at each other like two kids on a playground, one the betrayer, one the betrayed, and I saw my anguish get to her. She couldn't resist the claim of friendship.

"You didn't come with us," she said in a low, pleading voice. "I know it wasn't your fault, but that's why, that's the only reason. If you'd been with us, you'd know, too. We swore we'd never tell anyone else." She hesitated, convincing herself. "But you're not just anyone else — you should have been with us. It was meant for you, too. I'm sure I'm right. Wait, look, I'll draw you a map." She got up and went to her drawing table, found a piece of light card which was just the right size, and began to sketch and write something on it, muttering to herself. Then she presented it to me.

"What's this?"

"It's where you have to go." She leaned close and spoke very low, although we were alone. "Take William. Any excuse, a nice hike in the country, just get him there, find the fountain, and make him drink. Not

you. Just him. If you can't get him to drink there, take a flask and make sure he drinks it later, when you're alone together."

I'd known Janet to be loopy sometimes — she was the fey and temperamental artist, she believed in angels, fairies, witchcraft, magic, anything going, really. For a time she had lived in an occult spiritual commune upstate somewhere.

"And what happens then?" I asked.

"Shh! Just do it. I really shouldn't be telling you. Now, go." She pushed me toward the door, and I went without protesting that I hadn't had my cup of Red Zinger.

I looked at the card when I was in the elevator. The directions were to the Adirondacks, to the middle of nowhere, halfway up the side of a mountain where there was a magical fountain....

Then I remembered. The fountain. Three years ago, the others had gone on a camping trip, to a "magical place" with a "special fountain" that Janet had learned about in her commune days. It was meant to be a spiritual retreat and a bonding experience for us four friends. Only the night before we were to leave I ate a bad shrimp, and so while my friends were hiking through the woods I was laid up at home with a case of food poisoning.

Something had happened to them, something they had never told me about, but which explained their solitary contentment.

Outside, I crossed the street and walked past a couple of still unconverted warehouses with trucks in front and big, sweaty men unloading boxes and shouting at each other. I walked past, around, through them like a ghost. I can't say I missed the whistles and sexual commentary my presence would once have inspired, but just then I could have done without the reminder that I was an aging, invisible woman.

A garish green poster, plastered on a wall, caught my eye. It had a spiral pattern and the only words I could read at a distance were TIR NAN OG. That was what the Celts called the Land of the Ever Young, but probably it was the name of a band or a club — my not knowing, my recognizing it only as a reference from an ancient culture, was just another proof of how out of it, how past it, I was.

This was not my city anymore, I thought. This was not my country. The problem was, I didn't know where else I could go, or what else I could be, now that I was no longer a young and beautiful immortal.

I looked at the card again. If it was the fountain of youth, why shouldn't I drink it? Why should I give it to my lover? Janet had been so definite. But what did it do? If it was supposed to make your man love you again, why had Leland and Jim disappeared?

Well, I had asked a question. Now I must make what I could of the answer.

YOU WERE SWEEPED AWAY, you were charmed, by my sudden insistence on a weekend away. It had been a while since I'd swept you off your feet. You were intrigued, too, because it was so unlike anything we'd done together before. A day of hiking in the mountains! As an excuse, I'd claimed that I needed to check on the existence of a spring-fed fountain mentioned in one of the books we were going to publish. You had so little notion of what a book-editor did, and, really, so little interest, that you believed what I said without question. I didn't ask what you'd told your wife.

At first it was like old times. The strain that had been between us disappeared, and we laughed a lot and touched each other as you drove us out of the city in the freshness of early morning. But the farther I got from the city and the world I knew, the more uneasy I felt. What was I doing? I'm a good walker, but only in the city, when there is some point to it, things to look at, places worth going to. I don't like the country. It bores me and it makes me nervous; okay, there have to be farms, and places for wild animals and plants, but I don't see the point of it for *me*. As for this magic fountain — did it follow that because I believed in romantic love I'd also believe in magic? I wasn't Janet — what sort of desperation had made me believe in her magical fountain?

Naturally, I took it out on you. Your enthusiasm began to irritate me. What were you getting so excited about? A walk in the country? I didn't like hiking, why didn't you know that? You wanted me to be something I wasn't; you would have preferred someone else. Before long and I'm sure to your complete mystification we were arguing.

By the time we reached the place where Janet had indicated we should leave the car, we were barely speaking to each other. You cheered up a little once you were out of the car, lacing on your new Danish hiking boots and inhaling the clean, cool air, but I felt an undissolved lump of dread

sitting heavily in my stomach. But I was determined to go through with it now. I couldn't imagine how getting you to drink some water would result in my feeling better, but I would try.

I am a good walker in the city, but I wasn't used to hills, or to pathways slippery with pine needles, damp leaves, loose rocks. Nor could I keep up the pace you set. I had to keep stopping to catch my breath; I had to keep calling you back. At first solicitous, you quickly became impatient.

"If we don't get a move on we won't even make the summit before dark, let alone get back down to the car again."

"We don't need to go to the summit," I pointed out. The idea filled me with exhausted horror. "Just to the fountain, and that shouldn't be much farther, as far as I can make out from this map..." Squinting at it, it occurred to me that scale was not Janet's strong point.

You were as baffled by me as I was by you. What was the point of going only halfway up a mountain? "Come on, it's not that hard a climb."

"But I don't want to go to the top." I couldn't keep the irritating whine out of my voice. "Will, I'm worn out already. I want to stop at the fountain and have a picnic and a rest before we go back."

Your face began to cloud, but then it cleared. "Okay. You stay at the fountain and rest. I'll climb to the summit alone and then come back for you."

I didn't like the idea much, but sometimes you have to compromise.

We reached the fountain a few minutes later. First we heard the cool, gurgling sound of water, and then we found the source, hidden beneath a curtain of ferns and ground-ivy. I pulled back some of the greenery to reveal the smooth rim of a stone bowl that caught the water flowing up from underground. There was a channel that sent the overflow spilling into a small, bright stream that raced away over a rocky bed down the hillside.

"Want a drink?" I asked.

"From that?" You frowned.

"Better than recycled city water," I tempted. "This is exactly the sort of stuff that gets bottled and sold to people like you in restaurants."

"I might try it when I come back. I don't want to stop just now. You'll be all right?"

"What about our picnic?"

You sighed. "The sooner I go, the sooner I'll be back. You can eat some

of this stuff while you're waiting for me, if you want. I'll just take a candy bar and my water flask." Then you dropped a kiss on my head, determined not to be caught and delayed by anything as time-consuming as a real embrace.

For a while, I sulked, counting the minutes, wondering how long it would take you to get there and back again. I wished I'd brought a book. With nothing else to occupy me, I poked around the fountain, uncovering more of it from the encroaching plants. I scraped away the furry moss and found a figure carved in *bas-relief*: a cat, it looked like. Then there were markings that might have been writing, but the letters appeared to be Greek, which I can't read. It could have been graffiti left by fraternity boys from Syracuse or Cornell.

I was thirsty. The trill of water made the feeling worse. I fetched my little plastic bottle of Evian and drank half of it. More out of boredom than hunger I ate lunch, and finished off the Evian. Then I filled the bottle from the spring: my insurance in case I couldn't get you to drink *in situ*. Then I sat down in the sun with my back against a rock and waited for you.

I fell asleep and woke disoriented, hot and dry-mouthed. I thought that someone had been watching me and laughing, but that was only the music of the fountain. I was still alone, and really thirsty. I reached for the Evian bottle and then stopped, remembering that I had refilled it from the fountain. I licked dry lips and looked at my watch, which turned out to have stopped some hours earlier. The battery had been running down all day and I hadn't noticed except to think how slowly time was passing.

Where were you? I felt as if I had been sleeping for hours. What if you had fallen and hurt yourself, what if something awful had happened? I called your name, but the sound of my own voice echoing off the rocks in the empty air gave me the creeps. I advised myself to sit quietly and wait for you. If only I wasn't so thirsty!

It was late September and the day was pleasantly cool, but the sun blazed down, making me hot. I wondered if I could be suffering from sunstroke. I plunged my hands and arms up to the elbow in the fountain to cool myself, and dabbed water on my face. I had never been so thirsty in my life. What if I just wet my lips? But I needed a drink.

I longed for you to come back and save me with the dull, flat, safe city water in your flask. But you didn't come and didn't come and finally I couldn't bear my thirst any longer and I drank.

That was the best water I ever tasted. I drank and drank until my stomach felt distended. I felt content and at peace with the universe, without worries. I was no longer thirsty and no longer too hot. The sun felt good. The smooth rock where I had rested before was still warm with the sun, so I curled up there and went to sleep.

I was awakened by the sound of you calling my name. I opened my eyes and stretched, and you turned and looked straight at me, but the worry didn't leave your face, and you didn't stop calling. Were you blind? I got down and went over and pressed myself against you.

"Well, hello. Where'd you come from?" You began to stroke me. "Have you seen my girlfriend? I guess she got fed up waiting and decided to hike back to the car alone. Only, if she did that, why'd she leave her stuff?"

I wanted to explain, but no matter how I purred and cried and stropped myself against your legs, you just didn't get it. Are women more intuitive than men, or what? I followed you to your car but you wouldn't have me.

One of the sheriff's men took me home with him after a day spent searching the mountainside for me. You did the decent thing, regardless of the trouble it would make for you, and reported me missing.

After many adventures I made my way back to Manhattan, and to Washington Square, and Lecia's little apartment. I don't think she recognized me; at any rate, she shooed me off with a shocking lack of compassion. I hung around anyway, to give her another chance. Maybe she'd put together my reported disappearance with the sudden appearance of a strange cat. I found a position on a fire-escape which gave me a view into her living-room window, and I hunkered down and waited. As soon as I saw her getting ready to go out I'd make for her door and strop her ankles and purr like an engine. She wouldn't be able to resist me forever. So she had a cat already; why shouldn't she have two?

I watched and waited and finally, after moonrise, I saw James the cat turn, in the magic circle of Lecia's arms, into the man who was her lover.

Finally I understood the secret of the fountain, and knew that my only hope was to find you. If you want me, you can have me again. For you, I've left the city. For you, I'll live in the suburbs. By day, I'll be the family cat. But at night, in your arms, secretly, while your wife sleeps unknowing, I'll be your lover. You can make me change, if only you want me. ॐ



"Yet another building without a 13th floor."



A SCIENTIST'S NOTEBOOK

GREGORY BENFORD

IS IT SMART TO BE SMART?

IS IT SMART
to be smart?

Of the billion species that have thrived on Earth since the first cells, we are the only one to achieve high intelligence. Medium-higher levels appear only in other primates, some carnivores, and whales. It would appear that getting smarter has not been a wise career move for most animals.

Evolution rewards getting one's genes into the next generation. All life is in a furious competition to make copies of itself — actually, half-copies, for sexual reproduction (which is not just fun, but the preferred mode among all animals) carries forward only half the genes of each parent.

One need not be a cliché intellectual wallflower at the high school dance to suspect that intellect is far down on the list for selection.

This has implications for the Search for Extraterrestrial Intelligence, SETI. Big brains are not so much an advantage that they have been invented repeatedly. This is how evolutionists usually evaluate a property: by asking whether it developed often.

Generally, the number of times an ability appears is driven by both how easy it is to get, and how useful it is. Eyes (or at least well-developed light-sensing equipment) appeared independently at least forty times in widely varying organisms. Similarly for hearing, binocular vision, and other useful tricks.

Of course, high intelligence has a high down payment. The only way we know to develop intelligence lies in having big-brained children, who can learn varied responses to their world. This proves, in us, a better route than embedding in our genes elaborate programs

which tell us how to hunt, forage, mate, etc.

But big-brained children then require lots of care-giving time from their parents. Somebody must feed them while they learn artful ways of feeding themselves.

So slight increases in intelligence had better pay off from the first, giving a species a decided advantage in the genetic sweepstakes. Running big brains also eats up calories, as we'll see later.

Homo sapiens has been around roughly 300,000 years, only six percent of the time that hominids have tramped across Africa. (A hominid is any primate between ourselves and the chimps; all the others are now extinct.) We have been clever enough to build radios for only one century. Can we readily expect to hear radio signals from similarly smart species elsewhere? How common can we expect intelligence to be in the galaxy?

There are many ways to approach the intriguing questions which emerge from such ideas. Why did tree-dwelling shrews of 65 million years ago, minor bit players in the jungle drama, evolve into us big-brained lords of creation?

One method is to ask how rather than why — why not in the "who caused this?" sense, but in

the "what over-arching principle made this happen?" sense. Plainly natural selection is at work, but what mechanism does it use, in this case?

Asking the question this way is less vulnerable to the charge that we are simply telling "Just-So stories" to make the mysteries of vast time scales seem understandable. Big brains are useful for processing external stimuli and for formulating models about those data, and even for telling one's fellows about these ideas.

But how does an organism get the big brain to do these marvelous things? Would extraterrestrials follow the same path?

Suppose we approach brains as an engineering problem. A newborn's brain burns about 60 percent of its intake energy, a huge investment in a gray nugget that doubles in size in the first year. Rather than focus on the advantages of big brains, their huge energy consumption argues that evolution always had to consider tradeoffs. Our brains three million years ago were about the size of a modern-day chimpanzee's, and have tripled since, while our bodies are not even twice as large. Some clever energy savings had to happen for this to occur.

Firing neurons and manufacturing neurotransmitters, brains demand bigger hearts and lungs to carry the oxygen and nutrients for this work. There are brains four to six times larger than ours in elephants and the baleen whales, but at a price of far larger bodies to support them. How are we more efficient? Apparently, by trading guts for brains — an interesting metaphor.

The most obvious savings lie in our rather small digestive tract, which is about 60 percent smaller than in a similar-sized primate, just about balancing our increased brain. It takes a massive gut to digest raw plants and nuts. Eating meat requires a simpler, smaller digestive tract investment.

Higher quality digestion does not drive brain size, of course. Pigs have rather smaller stomachs, proportional to their weight, but evolution did not favor smarter pigs (though as mammals go they are not dumb); the investment went elsewhere.

The same holds for birds and bats, who have the demands of flight to limit their brain sizes. All this suggests that something special about primates was at work on us and the chimps, who lie somewhere between us and the other primates in brain/gut mass ratios.

There are suggestive refinements to this basic engineering view. The big crunch in brain energy need comes in the first few years of life, precisely when our maternal care is also so vital. Mothers provide the extra energy babies need through milk, and infants invest it in their brains. This pattern of large parental investment we have extended into longer and longer periods of dependency.

At a price. The birth canal diameter sets a severe limit on head size at about ten centimeters. We are born very immature, with flexible skulls. Some babies cannot even breathe on their own.

Some feel that these traits evolved around two million years ago, with a switch to a diet high in protein and fat, aided by tool use, cooking, and eating lots of meat. This is a positive feedback loop, driving the cognitive side of brain functions through the engineering constraint of energy for a given body mass. We found a social term in the feedback which made mothering essential over longer times.

Of course, there were other changes. Attaining an upright posture made it easier to balance that heavy brain on a spine, rather than hanging it at the end, levered against gravity by strong neck muscles, as

four-footed beasts do. But these engineering demands probably did not drive our erect posture at first; more likely, hands did.

Freeing our forepaws made their development into hands for gripping, throwing, and tool-making far easier. Some evolutionists believe that as the African plains dried out, stands of trees became farther apart. Standing upright is a faster way to cross the dangerous stretches of open country; chimps do this today, holding their arms over their heads for balance. Standing to run is safer, too, because then they can see over tall grass.

The price was that babies had to be held, because we were losing our pelts and they could not hang on, as they had done in the trees. (Actually, we may have the same number of hairs as our ancestors, but ours are far finer, and let air flow to cool us. We keep some hair over most of our bodies, apparently to alert us to insects prowling on us.)

Thirty million years ago the African forest lay unbroken and many large primates lived in it. Today forests are spotty and only four large species remain — us, chimps, gorillas, and orangutans. This suggests how profoundly external changes shaped us.

Neurophysiologist William Calvin believes that learning to use our hands orchestrated our growing brains into more and more complex movements — jabbing with spears, say, and then throwing sharp rocks. (See his *The Ascent of Mind*.) No other animal has such suites of abilities, and Calvin suggests that this drove our ability to string guttural noises together so that they could carry meaning: speech.

Continuity of effort lies deep within us. We love the sense of flow in physical movement enough to enjoy sports, seeing in it a drama and significance far beyond the objective importance of, say, moving a pigskin around a field. We say "He loves the sound of his own voice" as a mild rebuke, ruefully admitting that we share a love of extended expression, as well. (The pleasure process does not have to be strictly verbal, either, or else no one would write books, or columns like this one.)

There are signs of similar love for extended action in the animal kingdom, as when a hawk soars to great heights, sometimes riding thermals a mile high in the sky, without any apparent hunting motive.

Perhaps this ability to "throw long" mentally is deeply implicated

in our evolutionary preference for bigger brains. Calvin and others have argued that the periodic ice ages, driving populations to and fro across latitudes over the last 2.5 million years, vitally forced selection for a brain-tool connection. Climate varying on all scales between decades and many millennia surely would be a persistent fitness filter.

There is another clue in nature to the big-brain issue. Cetaceans — whales, porpoises, and dolphins — also have large brain/body mass ratios. What can we learn from them? As biologist Lori Marino observed, "Fifty-five million years ago, a furry, hoofed mammal about the size of a dog ventured into the shallow brackish remnant of the Tethys Sea and set its descendants on a path that would lead to their complete abandonment of the land." They are a prize example of mammalian adaptability, for though we have quite recently spread over all the Earth, into every clime, they ranged through the oceans many tens of millions of years ago.

Of course, aquatic animals have slight appendages, and labor under different engineering constraints. Still, the "encephalization quotient" (this is basically a ratio of the

cerebral cortex volume to that of the underlying brain — the higher the ratio, the smarter the creature. Let's call it EQ) of the cetaceans lies between ours and the other primates. There are several different ways of calculating EQs, and one useful method assigns us a value of 2.88, with common chimps at 0.97. Between those lie the dolphins and porpoises, with values ranging from 1.89 to 1.58. These exceed the first hominids; we apparently overtook the cetaceans in EQ around two million years ago.

Perhaps the most important fact from fossil dolphin work is that the cetaceans attained their high levels about fifteen million years ago! By this measure, they have been fairly smart for a long time. Big brains are not, then, a trait that keeps driving to our high limit.

Together with our spurt of brain growth, trebling in two million years, it seems that the factors driving us upward in brain size (and presumably toward better brain organization as well) are unlike those which made the cetaceans bright. As well, our brains are organized quite differently, and parallels are hard to find. This means the cetaceans are a valuable, different case of evolution upward in general intelligence.

There is much disagreement about just how smart the cetaceans are, with factions differing over how to measure intelligence at all. But some sophisticated social organization seems clearly implied by their reliance upon complex song and ability to solve a wide range of problems, many requiring chains of inference strikingly long.

There are other features in our development that reveal deep similarities. Evolution of big-brained cetaceans seems to have occurred when the southern oceans cooled and there was considerable biotic turnover. This parallels our conventional wisdom that hard times in African climes drove hominid evolution. Did porpoise brains level off in size once the oceans calmed down? Research is not detailed enough to say, as yet.

Environment may have been a major player in dolphin evolution, but so was social evolution. The cetaceans' basic social grouping is the "pod," ranging in size from a few to around forty. Interestingly, pod size scales up roughly with EQ. This resembles the primates, for whom mean group size also rises with EQ, from one to a hundred individuals. If group size measures social complexity, as seems plausible, this suggests a commonality

between us and the cetaceans. They form a telling boundary case by which we may mark our uniqueness in nature.

No other placental mammal has as great a ratio of brain size to body size as we do, and we might be very near the design limit. Much larger and our heads would seriously endanger both mother and child while passing through the birth canal. It is a happy accident that this limit is enough to give us the room to cogitate on matters such as our own origins. If the limit had been, say, at a brain size half our current average, we might be still the lords of creation, but we would not reflect upon that fact.

Of course, we are not just great thinkers; we are great, incessant talkers as well. Some evolutionary biologists think we may in part have grown big brains to gossip, stitching up our social fabric.

Evolution is a miserly opportunist. About ten million years ago it worked upon the primate ancestors we share with the chimpanzees, making small adjustments in existing parts to create advantageous change. We have much in common with the chimps.

We use the standard-issue mammalian hearing structures,

which can resolve ten sounds per second but no more, apparently because there were not a lot of clues faster than that in our world. Larynx, throat and mouth were engineered to process food, perhaps then retrofitted to process grunts, then words. Our upper mouths and nasal passages can give us sinus headaches, but they also lend our voices a deep, resonant quality, like notes heard from the ceiling sound chamber of a concert hall. Such tones are rare in nature and presumably proved useful.

Some evolutionists believe that early brain circuitry worked out to control hand movements got co-opted into speech-making. How neurons built up to move fingers got retooled into circuits able to pull words from a dictionary and insert them into a flowing syntax is a tantalizing mystery.

Plainly the ten million years since we parted genetic company with the chimps have shaped us for speech, pointing to profound evolutionary pressures. Since the seventeenth century we have tried and failed to teach chimps to talk. They can artfully use sign language with vocabularies of around 500 words, so the neural circuitry is in place. Perhaps they used more sign language in the past than they do now,

for their present capacity seems underemployed in the wild.

Our complicated way of making speech is a Rube Goldberg kludge. Like most animals, apes can swallow while they breathe. We cannot, because our oblique upper vocal boxes block our upper windpipe. Our shorter jaws squeeze our wisdom teeth, making them prone to impacting and rot. The thinner jaw bone supports smaller teeth, making chewing harder. All these disadvantages, which could prove fatal in adversity, were worth the gain of speech.

Still, chimps seem as though they should be able to get out some smothered phrases like our speech, if only their brains were geared that way. But they aren't, a clear sign of how our brain "hardware" and "software" differ.

No animal but us can rap out quick strings of varied, precise noises, syntactically arranged. There are monkeys who can hold fruit in their mouths, peeling and swallowing and spitting out pits at machine-gun speed. Competition for scarce food and poisonous pits explain why evolution would prize such selection. Our mouths have simply followed another path, one intricately wired in with our minds.

This is part of a larger problem we have in thinking about our link to animals. We innately sense our connection to nature, especially to those mammals close to us: cats and dogs, horses and birds, our collaborators. We recognize intelligence in the stalking of a good hunting dog.

But talking? We chattering primates set great stock in this recently developed ability, of which Neanderthal may have had only a smattering. Yet some mental template for internal symbol-arranging apparently goes back to that ten-million-year juncture. Recent decades have convinced chimpanzee researchers that these nearest relatives have considerable communication skills, managing sign "languages" of many hundreds of words.

Ample signs of this lie in the long saga of chimp communication. All primates use sound to signal, conveying alarm, status, comfort and delight; chimps even laugh with an infectious mirth that envelops the entire group. Even accents or dialects may modulate their speech.

How tempting, then, to see what else we have in common, particularly socially. Can we understand ourselves better by using the chimps as a mirror?

...

Just as humans differ among themselves, chimps do—and rather more profoundly.

The common chimp's short legs, long arms and vastly more muscular body we readily recognize. Few know that the species has split, yielding the "pygmy" chimp, the bonobo. (A beautiful introduction to them is *Bonobo: The Forgotten Ape* by Frans de Waal, with photographs by Frans Lanting.)

Science missed these intriguing creatures, buried in central Africa's secluded forests, until a discovery of a skull in 1927, and live groups a few years later.

Bonobos aren't actually pygmies; they weigh only slightly less than the familiar chimp, and stand up more than they do. This gives them a strikingly more human look, along with their slender legs and arms and smaller head. Lounging and moving about, they look uncannily like one of us, pleasantly at ease on holiday. Bonobo faces are darker, flatter, with bright red lips and no protruding muzzles.

The central question of how distinctively we differ from the chimps depends on which chimps we mean. Humans, common chimps and bonobos have all evolved away from our remote com-

mon ancestor, each pursuing different strategies.

Consider the similarities: we share social patterns like tribalism, and spend our days alternately forming and splitting up groups to accomplish varying tasks ("fission-fusion grouping"). Our females usually (though not always) join the family of the man when they mate; chimps have groups dominated by "alpha males." Infants are dependent for years, far longer than other species, staying close to mothers who give birth at intervals of years. Many social patterns like grooming and cooperative gathering are remarkably alike. Chimps use simple tools, most notably sticks to draw termites from their mounds.

But the bonobos are egalitarian and peaceful, compared with the common, hierarchical chimps. Alpha males lord it over females in common chimpdom, fighting each other for sexual privileges. Bonobos stick together more, spending more time at common tasks or just lounging.

Hierarchy is the essential glue of the common chimp; sex does the job for bonobos. While we humans have the largest genitalia of the primates, the bonobos get more action; they are the sexiest primate, by far. Much of their day passes in a sexual euphoria, with mutual mas-

turbation and oral sex common among all members of the group.

Sex is the safety valve of bonobo society. Fights get settled finally not by grooming but by sex. Visitors use copulation as a calling card. They employ all possible positions, and unlike the common chimp, often have face-to-face sex. Some primate scientists feel this shows an emotional connection seen elsewhere only in humans.

Animal comparisons have for decades now been undercutting our arrogant assertions of human uniqueness. We employ and enjoy a particular primate strategy, no more. Our 98 percent of genes shared with both bonobo and common chimps undoubtedly carries some programming for shared worldviews, desires and social certainties.

Chimps display advanced "cultural" traits. Some groups crack nuts, while others with the means at hand don't. Their social ladders are as precise and well-tended as White House protocol. These imply a sense of self which bears up under clinical experiment. Chimps and other primates know who they are and their place. Plainly they think about matters we would recognize as substantial. Indeed, a few million years ago, we probably

played quite similar conceptual games.

We humans seem to stand somewhere between the common chimps and the bonobos. We like hierarchies, from armies to presidents to movie stars, and sometimes will even die for them. The common chimp wages war and commits murder, apparently to expand territory, just like us, though perhaps not as frequently.

We humans use sexual cement, as do the bonobos. We pair off for long times, unlike the common chimp. But sex isn't our dominant organizing principle and major recreation, despite what advertisements might suggest.

Clearly we have evolved social strategies like both types of chimp, with nuances and powers they do not share. How much does this tell us about ourselves?

Some primate researchers have begun to suspect that animal conduct codes come from strategies designed to make social living efficient, and not from some innate sense of evil.

This vision of morality as natural, derived as a design to shore up the passing on of genes, is a big conceptual leap. Such ideas disturb many of us, especially those prone to elevating humans on a pedestal

of lofty principles. That is why a long-term chimp observer in William Boyd's novel *Brazzaville Beach* gets angry just seeing common chimps grow violent in Tanzania's Gombe National Park. Though supposedly a careful scientist, trained to think rationally, he expects better of chimps than of us, and instantly responds to a woman primate specialist's news with ironically chimp-hierarchical rage. He wants chimps to be different, better.

Many others do, too, when looking at primates. Feminists might well embrace the bonobos, who give females far more power, promoting social cohesion. Whether any of us would want humans to become sexual omnivores is another matter. Most of us seem to want our species to lose some of our blemishes, especially aggression.

Generally among animals internal competition is mediated by social rules — crucially so among the primates, who have both intense societies and great intelligence. Rules get enforced among all primates by tit-for-tat game strategy, with cheaters penalized severely by ostracism.

Sociobiologists have grounded their theories of kinship selection to explain why animals will sacrifice themselves to better the common

lot, since they share genes that then get passed on.

High levels of cooperation in turn imply that primate societies coordinate their actions because they can predict outcomes, sometimes remarkably distant in time. Gathering strategies among baboons show memory over days. This is not unique to primates, of course; canines hunt in groups and share the kill, and insects are geniuses of unthinking cooperation.

But primate social systems are more advanced and nuanced than others'. This suggests a long evolutionary history of what we can only term morality. Such development might well apply to any social beings, even aliens or machine societies.

This idea strikes solidly against much prevailing moral philosophy, which tends toward top-down principles that dictate behavior, following logically. Our current model invokes images like Moses bringing down ten commandments. We speak of moral law, not moral efficiency.

Behavioral studies among primates reveal a bottom-up origin for morals and ethics. Getting along and working in concert would shore up the survival of groups which adopted such shared rules. Chimps,

and probably our distant hominid ancestors, lived in tribes of one or two hundred souls. Tribes that enforced social rules probably fared better in the competition for food and territory. They did not waste energy and time on internal friction. Building a bias toward such rules into the genome would cement this social invention.

This is not group selection in the old genetic sense, for still it is up to individuals to pass on genes. But it does place all social evolution in a continuum, with us as merely the latest outstanding example.

This larger biological context for ourselves does not mean that humans are merely animals, but that animals are rather more than we have thought. Many will find even this adjustment hard to take.

If right and wrong emerge from social evolution to promote survival, then they are merely utilitarian. Worse, our current ideas of right and wrong have no particular cachet, for they are simply the latest fine-tuned ideas with which we navigate on the strange seas of our quite recent civilization.

Many people, and probably particularly humanists of the "social constructionist" persuasion, will dislike this entire line of reasoning.

Its foundation in solid anthropological field work will not matter; it implies a definition of being human that seemingly mocks our dignity, our Renaissance centrality.

Let us take the logic a step further. Unease at such descriptions may itself have a natural origin. In the last six million years we have been accelerated by evolutionary forces we can still only vaguely sense. Wandering the plains of Africa, we may have developed a need to see ourselves as quite distinct from all other life — higher, better.

This could make our use of other species untroubling. Far easier to slaughter large numbers of game animals by driving them off cliffs or into pits, as our ancestors did, if we can detach ourselves from their death throes. Our sense of our specialness itself might have been selected for at the social level among hominid tribes far in the past.

This ability of evolutionary ideas to trump even the moral misgivings of the humanists is bound to cause even more discomfort. It is a final meta-argument for our profound non-specialness.

Though we are special: the last surviving hominids. We have occupied the smart niche with no rivals

since the Neanderthals vanished 35,000 years ago. Until then, there was always at least one competitor primate of intelligence roughly within our range.

We might also expect smart aliens to be alone. Perhaps the shadow across these last 35,000 years has been a vague sense of existential loneliness, with no one to talk to, even with sign language. SETI and our experiments with dolphin and chimp communication may show this shadowy sense.

As for SETI, perhaps crafty intelligence such as ours truly is rare. After all, we seem much smarter than our environment demands. Maybe we are smart mostly because we are so social — interactively so, not as a mere herd.

Aliens might be equally social, then, which is good news for SETI — they'll want to talk. They might well have a deep moral sense, too, for the reasons I've sketched. That may make it easier to communicate truly difficult, cultural matters.

But their morality would be good for them, not necessarily us. Chimps make war on rival bands, just as we do. Aliens might have a history of war and a visceral dislike of outsiders, just like us. In their science fiction movies, loathsome

hairless primates descend from fierce ships, slicing the peace-loving arachnids with their death rays....

Aliens who truly despise and fear other species might have overrun and destroyed their biosphere (as we seem in some danger of doing). We won't hear from them in the radio frequencies, luckily, for they will probably be impoverished.

SETI might detect smart aliens who cooperate with each other readily (avoiding insect-hive sociology, though, which seems unlikely to produce high intelligence). If they have less fear of others, and want to gossip, they might well put out the radio welcome mat — a bright beacon.

This suggests that we look for the spectacularly successful aliens who might broadcast strong beacon signals — the rich guys. Just as we have come to dominate our planet in an evolutionary instant, something similar may happen on the scale of whole solar systems, elsewhere. Only such a civilization

could master the enormous resources to build big beacons.

If so, a strategy of looking toward our galactic center may be best. Not only is the center the one obvious symmetric point in the galaxy, it also lies in the richest, highest density of stars.

Stellar evolution began there and moved outward, stars forming first at the dense central bulge. Our comfortable, suburban region, $2/3$ of the way out into the disk, produced the metal-rich planets hospitable to life later than did the stars nearer the core.

Instead of searching nearby stars, maybe we should look more deeply, and inward. It is 28,000 light years to the galactic center. There evolution has had nearly ten billion years to work. It might need that much time, to arrive at many such smart rarities as ourselves.

Comments and objections to this column are welcome. Please send them to Gregory Benford, Physics Department, Univ. Calif., Irvine, CA 92717, or benford@uci.edu.



Terry Bisson is the author of about half a dozen novels, including Fire on the Mountain, Talking Man, and Pirates of the Universe. He is also a master of one of the most difficult literary forms, that of the short-short story. Tales like "Next," "Partial People," and "They're Made Out of Meat" waste no words in conveying character and concepts that stick in the mind like barnacles on a hull. (When you find yourself thinking of this new story at unexpected moments, don't say you weren't warned.)

Smoother

By Terry Bisson



MAZING, ISN'T IT?

I guess. It would be even more amazing, as Oscar Wilde once said, if the water didn't fall.

Oscar Wild? The weiner guy?

A famous funny sayings guy. From long ago. I think he played the piano, too. Anyway, it could happen. Or not happen.

What not happen?

The water not fall.

I get it. You're talking about Smoother. I thought we weren't going to talk about Smoother.

Sorry. It's just that, there it is. Smoothing along. One hundred twenty miles a day, day after day.

So what? So what does that have to do with us, you and me, here and now?

Nothing. And everything.

Smoother's not even heading this way.

Not now.

I get it. You're talking about the whole world again. Well, for your information, at the rate it's going, Smoother will take thousands of years to smooth out the entire world.

More like hundreds. Do the math.

Okay, I'll do the math. It's a mile wide, it moves at about five miles per hour...

Eight point four kilometers per hour, to be exact. And Smoother is 2.173 kilometers wide.

Whatever. Metric Smoother, then. Either way, we're talking about a long time. The world is huge. Smoother just smooths a little strip.

That little strip, as you call it, gets longer and longer. Every year Smoother smooths an area the size of England. Smoother has already smoothed a strip long enough to stretch around the world five times at the equator.

Most of it worthless land. Most of it ocean floor.

In a few hundred years the whole world will be as smooth and featureless as a pool ball. A giant beige cue ball.

Lighten up! You and me won't even be around in a few hundred years. Our children will.

We don't have any children. And we never will if we spend our entire Honeymoon worrying about Smoother. It would be more amazing if it didn't smooth, according to your wildman guy. And it could be worse. Smoother takes its time. It's moving at a walk.

A fast walk.

Still. People have plenty of time to get out of the way. Nobody's been killed by Smoother since Malta, and that was sort of a sneak attack.

And those villages in India.

Hey, it wasn't Smoother's fault they didn't watch TV.

They didn't have TV.

Same difference. And then they hung around, getting in the way, wanting to watch.

I know how they felt. Everybody wants to watch.

Not me. I got enough of Smoother when I was in the army.

You told me you only saw it at a distance, once.

Once was enough. I was in a helicopter. They were trying to cut it off with bombs.

What was it like?

Same as on TV. A ribbon of smooth nothing, about a mile wide, unrolling over everything. Flat. Sort of beige. No noise. Kind of a hump in the front, about four stories high —

I don't mean Smoother. I mean, what was it like trying to stop it?

Stupid. Pointless. You saw it on TV. They shot at it, bombed it, tried to dig under it. Most of the guys killed were killed by friendly fire. And of course, the nuke. That was super stupid.

What's stupid is doing nothing. You can't just let Smoother smooth out the whole Earth without trying to stop it.

Sure you can. Especially if there's nothing you can do about it. And no matter what we do, it keeps going at the same speed, winding its way around the world, smoothing out whatever is in front of it, leaving behind that mile-wide smooth strip of nothing, like a yellow brick road.

Beige.

Beige, then. Rain evaporates as soon as it hits it. It won't burn, it won't break, it won't —

They say you can walk across it.

You can jump up and down on it howling at the Moon, if you want to, but you can't get rid of it or change a damn thing about it. Once it's there, it's there. Period. Finis. End of story. Get it?

Now who's the one that's all hot and bothered?

Sorry. It's not Smoother that bothers me, it's all the people who can't stop obsessing about it.

Like me.

I'm not mentioning any names. Notice how I'm not mentioning any names?

So just forget Smoother. Is that what you're saying?

Exactly.

What if you can't?

It's a discipline. It's all about living in the Now. Which is our Honeymoon, in case you've forgotten. Why don't you come over here.

Not in the mood. Let's see what's on TV. Damn! I should have known.

Smoother looks kind of peaceful on the small screen, doesn't it? Spiritual, almost.

It's disgusting.

It's smoothing a bunch of desert. Now tell me, is that so terrible?

That's Africa. Last month it barely missed Kilimanjaro.

See! A miss is as good as a mile!

But it will get it eventually. That's the thing. It will smooth everything. No matter what it hits or misses, Smoother will keep going, around and around the world, until every square inch is smooth.

Girl, you have got it bad! Why dwell on doom and gloom? You'll be gone long before it happens. In the meantime, why not sell the roses?

Smell the roses.

Whatever. Look at those elephants run! Smoother can be cool if you let yourself get into it. Remember when it went through China and took out a twenty-mile section of the Great Wall?

That was horrible.

But spiritual too! Nothing lasts forever. Not even the Great Wall of China. Not even the Taj Mahal, though part of it's still there.

Most of it's gone.

Is the glass half full or half empty? I say it's half full!

What'll you say when the glass is gone?

Listen to you! Sometimes I think if there wasn't a Smoother, people would invent one. Just to have something to worry about.

Like me.

I didn't mention any names. See how I'm not mentioning any names?

Just because I'm concerned. Aren't you ever concerned?

There's a difference between being concerned and being obsessed. When I see Smoother heading my way, I will worry. Until that happens, I want to enjoy my — our — Honeymoon. What's left of it.

I get it. Your feelings are hurt. You think I care more about Smoother than about you.

Well, don't you?

Of course not. It's just that — I hate Smoother so much!

There's that word I hate: Hate! But seriously, life's too short to waste on hating. Just accept Smoother for what it is.

Which is — what?

Maybe there are some mysteries we are not supposed to unravel. Think how boring life would be if Nature had no secrets!

Nature won't, when Smoother gets through. Don't you ever wonder where it came from? What it's doing here?

Maybe it was here all along and we never noticed it. Maybe it dropped in from another galaxy. Maybe some crazy guy made it in his garage. Maybe it escaped from a bottle in a lab. Who knows? And it's pretty obvious what it's doing here.

But why?

Want to know my theory? I think Smoother is here to remind us that life is about Change.

Smoother is about the end of Change. When it's finished the Earth will be a smooth ball floating through space. No water, no wind, no people, no life at all.

That's Change, isn't it? Stop trying to control everything all the time. Think different. Live in the Now. Hell, it's kind of pretty, smoothing along across the veldt anyway. It is veldt, isn't it? Do you say the "d"? Or is it the savannah?

Both. Either. Neither. I don't know. Never mind, Sooner or later it'll all just be a big smooth yellow nothing anyway.

Beige. You said yourself it was beige. Hey! Why'd you turn the TV off? *I thought you were sick of Smoother.*

I am, but I'd rather watch it than talk about it. But hey, this is our Honeymoon, and the water's still falling, as your wildman would say. Why don't you come over here with me.

Because I'm not in the mood. Plus I have a headache.

On our Honeymoon? Try one of these.

Tylenol?

Better. It doesn't stop the pain, it goes straight to the brain and blocks the consciousness of pain.

So you don't feel it?

You feel it, but you don't feel it as pain. Might even work on your mood.

Sounds good. I'll give it a shot. What's it called?



What lies ahead for Robert Reed? The following story should discourage anyone from making such predictions, but we'll wager that Mr. Reed's next book will be a collection of short stories entitled The Dragons of Springplace. Perhaps it will even be published this April or May. But who can really say for sure?

Will Be

By Robert Reed



WE WENT TO SCHOOL together. Kindergarten right up through high school. But Marv and me were never what you'd call good buddies. In grade school and junior high, I bet we didn't say ten words to each other. In high school, Marv was in one of my gym classes, and because of our last names — Donner and Dubrook — we were stuck in the same homeroom. And yeah, sure, our senior year we shared a locker. And that's it. That's all. Even considering how things are going now, that's all there is to tell. To me, Marvin Donner was this scruffy little blond twit who always had to wear his hair longer than anyone else and who said, "Cool," and, "Neat," while grinning way too much. The twit loved to smoke that ditch weed. From junior high on, he was our official class doper. The best thing I remember about him is that when we were locker mates, he kept telling me, "Don't look behind my books, Steve. Okay? And if you've got to look, don't take any more than you really need."

"Okay, Marv," I would tell him.

"Cool. Neat. Thanks."

Despite what you hear, a lot of us kids managed to stay sober and clear-headed in the '70s. The occasional beer was it for me. I was this upstanding boy trying to hang out with the college-prep crowd. While Marv Donner was stuck in some blue-collar, pot-haze track. Shop classes and bonehead English, I'm guessing.

He was already playing the guitar. But back then, every guy tried playing it. We thought girls liked a man good with his fingers. Marv used to sit outside at lunch, strumming hard and singing little songs that he must have written himself. Must have, because I didn't recognize any of them. And because they weren't very good. I can sort of remember their cheery noise and his scratchy little-kid voice and how he would strum and pick until something sounded absolutely awful. Then he would stop the show and twist the knobs, telling stupid jokes while trying to fix what could be fixed.

Singing and pot. Marv's life in the shell of a nut.

During my last semester, I had an early geometry class. One morning, about a week before graduation, I got to school late. One of the counselors was waiting at my locker. Ms. Vitovsky was this chunky little woman who took everything seriously. She said, "Steve," with a voice that made me hold my breath. She said, "I have awful news." Then she gathered herself before telling me, "Marvin Donner was in a car wreck."

Marvin? It took me a few seconds to put Marv and Marvin together. I blinked and straight away, I asked, "Is he dead?"

Miss Vitovsky gave me a brave little smile, then said, "No. But he's badly hurt." Because she thought I needed it, she put a hand on my shoulder. Then she told me, "His car hit a light pole. He's in intensive care. At General, if you want to visit him."

What I was thinking about was that I was late for class. I shook my head and admitted, "You know, I barely know the guy."

"Really? I thought you were good friends."

I wrestled open my locker. Marv's books were on the top shelf, their plasticized covers looking new. That's how much he needed books. On the spur of the moment, I reached up and peeked behind them.

Nothing there.

"I've seen you talking with him," the counselor was saying. Explaining why she had mistaken us for friends.

I grabbed my books, slammed the locker, then told her, "Sorry."

"By any chance then...do you know who his friends are...?"

Again, "Sorry."

"Well," she had to tell me, "Marvin is going to pull through." She touched me on the elbow. I can remember the squeeze of her fingers and her eyes looking damp, and I remember her voice breaking as she said, "If anyone asks, tell them. Tell them that he should make a full recovery. Would you do that, please?"

Our fallen comrade didn't make it to graduation, naturally.

But Marv got himself mentioned. Our principal publicly wished him well. Which caused our valedictorian to do the same in her long, boring speech. Using their best Cheech and Chong voices, my classmates repeated a string of bad pothead jokes. And I made some little comment about driving into a light pole and becoming famous. "If that's all it takes," I asked, "why don't we all do it?"

Summer was busy, and boring. I spent it stocking and clerking at my father's little grocery store, saving up my money and having zero time for socializing.

I went to City College in the fall and found myself in a new circle of friends.

Around Christmas, I bumped into one of my old circle. Both of us were out shopping. We spent most of our breath promising that we'd get together soon. Lying, in other words. Then the guy told me, in passing, "I hear Marv got out of the hospital. Finally. He's living at home again."

I hadn't thought about my lockermate for months, nearly.

But I said, "Yeah, that's great to hear." As if I already knew it. As if I'd spent my nights worrying.

Four more years slipped past without Marvin Donner.

I met this beautiful girl named Patty, and we dated. And screwed. And while that was happening, I started screwing her best friend, Molly. Which wasn't the smartest trick. Then after both girls dumped me, I met Cathy, who was pretty enough, and fun enough, and we were married just before our senior year.

I graduated from City College with a degree in business.

My father hired me. Bribed me. Whichever.

Maybe it wasn't smart to return to the grocery. But Cathy was pregnant — with twins, we found out — and she had a talent for spending everything we had. That's why I took over managing the store, working some bruising hours. Early one morning, driving to work, I heard this odd song that just kept going and going. It was pretty enough, I guess. And the refrain sounded like it belonged on the radio. Light and fun, and all that. "What might be, should be, will be," it went. Then, "Will be, will be, will be..."

The song never finished. The disc jockey put it to bed after five minutes or so.

"'Will Be' is the title," he announced. "By a local talent. Marvin Donner."

I could have rushed over to Musicland and bought the '45. I've met hundreds who did, or at least claim they did. But frankly I've never been much for pop music. Sometimes, I go for years without even playing any of my Beatles albums.

"Will Be" was in the Top Forty for three quick weeks, peaking at 31st before quietly drowning in the disco sea.

An old classmate came into the grocery one day. He reported that Marv still looked like the same blond-haired twit. That he was living at home with Mom. Still. And that he was making pretty good money singing at the local clubs.

I heard "Will Be" a few times, always on the radio.

Usually I was in the Chevy, which had shitty speakers. But one time I was at my folks', hearing it on their big cabinet stereo. That was the only time when I really listened to the words, and some of them stuck. "The plague will come in the blood," stuck. And, "The sandman burns the desert." Grim bullshit like that, and no wonder it didn't sell better. That's what I was thinking. Then I heard that line about "The ragged rings of Neptune," and I was thinking, "Poor Marv."

"Saturn is the planet with rings," I was thinking.

And I shook my head, feeling awfully superior to that stupid little doper.

Life melted past me.

I was this kid just trying to keep his family happy and afloat. And then

I wasn't the kid anymore. I was living out on the edge of town, in a house with four bedrooms and as many toilets. But the twins were out of college, and the other two kids were paid for. And that's when it occurred to me that more than half my life was done, and if changes were going to be made, I needed to make them now.

It was a pretty typical divorce. Pissy and bloody, and left unfinished for too long.

In the end, Cathy got a fat slice of the grocery. But I found myself being philosophical about the loss. The grocery was my father's, not mine. And Dad was safely dead, immune to what was happening to his legacy and to me.

No, what mattered in my life was me. Finally.

I rented this upscale one-bedroom apartment and leased the best sports utility 4X4 that I could afford. Then like millions of brave grayhairs before me, I went out patrolling for willing young women.

My third date was a single gal in her twenties.

Named Lucee. "The same as Lucy," she told me, "only different."

Maybe she wasn't as pretty as some, and I think she could have misplaced ten or twenty pounds. And early on, I learned that she had some wonky beliefs. Before we were done with dinner, I learned all about Chinese herbal treatments and how the Shriners had a role in Kennedy's assassination. But on the bright side, we ended up back at my apartment and in my bed, and at one point, while I was lying happily on my back, Lucee started humming a familiar little melody.

"What's that song?" I managed to grunt.

She said something that I couldn't quite decipher.

"The song," I moaned.

Then her mouth was empty, and she said, "Will be," as if that was enough. As if I should know instantly what she meant.

"Will be what?" I said.

"It's about the future, Steve. Don't you know the song?"

I hadn't thought about "Will Be" in years. Or Marv Donner. That's why I just lay there, sputtering, "I don't know it. Should I?"

Lucee shook her head and pulled herself up over me, sex forgotten for things more cosmic and vital. "It's all they talk about on the Internet," she informed me. "I can't believe you've never heard of it."

"Will Be"?

Again, she hummed the refrain.

"Wait," I muttered. "'What might be, should be, will be...?'"

She grinned and said, "You do know it!"

"Well, sure. I used to hear it on the radio. Back when you were wearing diapers, practically."

That put a light in her eyes. "Really?"

"The singer...he's a local guy..."

"He is," she agreed.

I rolled out from under her and looked at those bright eyes. Then I told her the clincher. "You know, I went to school with Marv. We were lockermates. Buddies, even."

Her eyes changed their color.

Their tone.

Then Lucee, with two Es, scooted back a bit and shook her head, pointing out, "A minute ago, you didn't know what I was talking about."

Asking me, "Just how gullible do you think I am?"

Lucee taught me the basics that night. The song was obscure for a lot of years, she admitted. But then some music buff in Albany or Indiana was playing the old '45, and he realized that certain passages made sense. The sandman who started the fire was Saddam, of course. The poison in the blood was AIDs. And Neptune really had a goofy set of rings. Which was something that I didn't know until that moment.

According to the Internet, and my date, a bunch of predictions had already come true. And others looked ready to.

And yet. I didn't hear anything more about "Will Be" for several months. Lucee was exaggerating the song's importance, because even the wonkiest rumors on the Net creep out into the real press. Which didn't happen. And I didn't hear anything more about it from Lucee, either. She didn't return any of my calls, and after a week or two, or three, I decided she was too crazy anyway and gave up on her.

Out of curiosity, I looked for my old lockermate in the phone book.

No Marvin Donners, or Marvs. But it had been a lot of years, and even potheads move away. And besides, your modern prophets usually have a 900 stuck in front of their phone numbers.

Those next months were pretty lousy. When I was married, the world seemed filled with young willing women. But after Lucee I plunged into a stale stretch where I wasn't meeting anyone, young or otherwise. And where every other part of my life was full of problems, too.

The store roof began springing leaks, and my freezers were coming to the end of their natural lives. My assistant manager left me for one of the big chains. And all the while, my ex was riding me for not keeping up with the monthly extortion payments.

In the middle of everything, I spotted an article in our local paper. Reprinted straight from *The New York Times*, it talked about an obscure song and all the ludicrous predictions that had come true. Plus those still waiting for the chance.

Read his lyrics in the proper way, wrote the reporter, and the songwriter had successfully predicted every President starting with Reagan.

"The chimp's sidekick," Marv called him.

Bush was, "Texas Yale."

Then there was, "The little rock has busy rocks."

Plus our current Top Dog: "The hero from the flatlands!"

And there were other predictions that became history. "The eye-told-us what to do!" was the Iranian hostage mess. Three Mile Island was "The Amish meltdown." The collapse of the Soviet Union had its own full verse, complete with the birthmark and the wall tumbling down and tanks shooting at their White House.

Plus there were the wonky science predictions that seemed to pan out. "Jove's pimply child," was a moon of Jupiter. Apparently. "A man from New York is born twice," was the billionaire's clone baby, announced just weeks ago. And "The sun lives inside a bottle of light." Which wasn't a doper's mutterings. But instead, I learned from the article, was a pretty fair description of the newest fusion reactors.

Yet what really impressed me, and sold it for most of the world, was what hadn't quite come true. Yet.

"After the third day of the third month of the century's third year," Marv once sang, "the bear kills a third of everything."

The reporter made the easy guess about the bear's identity. What's more, that predicted date arrived a week later, and exactly on cue, our

stock market took a wild tumble, hundreds of billions of dollars evaporating in a single horrible day.

Economic nightmares have warnings. But usually not in a bad pop song.

Over those next days and weeks, what started as crazy electrons on the Internet turned into the only story on the news. Even the stock market took second billing. "Will Be" was the subject of every editorial and a hundred special in-depth reports. The Flatland Hero mentioned the song at his press conference, joking that Mr. Donner was the newest member of his cabinet. And overnight, our little city filled up with cameras and reporters vying for a word with or even a glimpse of our most famous citizen.

Oh, yeah. Marv still lived nearby. With Mom, as it turned out. And Mom happened to like a certain fat old reporter who worked at one of the local stations. That's why he beat out a brigade of Pulitzer winners to get the interview of the century. Of the millennium. Whatever.

Expecting history, I watched that show.

My first impression was that Marv hadn't aged at all. My one-time locker buddy was sitting in the tiny living room of his mother's tiny house, looking as boyish and simple as ever. His hair was thinning but blond still, and it was still just as long, tied in a ponytail. But on second glance, I noticed that his face had that sickly wrinkled look that you find in kids who die of old age at fourteen. Normally I would have thought Marv looked silly. Old hippies always do. But knowing what kinds of gifts he had at his beck and call had me thinking, "On him, it looks right. Just like a prophet should be...!"

The lucky reporter was flustered enough to tremble, and his voice cracked and broke and sometimes stopped altogether.

"Where did you...did you...think up this wonderful song...?"

Marv gave him a dooper's vague stare, then with a smoke-roughened voice said, "On my back. When I was in the hospital. There wasn't anything to do but look far ahead."

The reporter gulped and said, "Yes...I see..."

He hadn't done his homework, obviously.

"Why were you there...in the hospital...?"

"I wasn't feeling good." Then Marv broke into an odd little laugh,

something in the eyes either very wise or very empty. "But I got better. I got well."

"Well...that's good to hear." Another gulp, then, "Can you tell me? How did you look into the future?"

A giggle. Then Marv leaned forward and told him, "Carefully. I did it carefully."

The interview lurched along like that. Stupid questions followed with words that might mean everything, or nothing. Depending on how you heard them.

Finally the reporter mustered up his courage, asking, "But what about the future? Is there anything that isn't in your song — ?"

"Stop!" a woman barked. Then a white-haired old gal — his mother, I guessed — came running into the picture, hands raised, screaming, "We warned you! We are not, not, not discussing that!"

She looked like her son. Except she was clear-eyed and tough as gravel.

With a strength that took everyone by surprise, she shoved the camera out of Marv's face, telling the world, "It's over. We're done! Leave us alone!"

I 'D NEVER FOUND TIME or the excuse to make it to any high school reunion.

But it seemed important that summer. The economy was still buckling beneath us, and just like the song predicted — "Siberia goes bye-bye" — a civil war was brewing in Russia. With all of these important things happening, the reunion became a kind of duty. A way of elbow-scraping with history. Even when it was announced that your most famous alum wouldn't attend, I did. All of us did. How else could you come to terms with what was happening?

I ended up in the corner of a packed ballroom, shooting the shit with most of my old circle. The men were fat or balding, or both. The women looked as if menopause was riding them hard. But the talkers still liked to talk. And the ones who always knew the gossip at school were the ones pretending to know it all now.

"The car crash is what did it," one fellow assured us. "Marv got a pretty good head injury. Obviously the damage did something to his wiring."

We nodded. Obviously, absolutely.

Then another in-the-know said, "He still doesn't function too well. I saw him when he was still performing. Remember the Cottonwood House? His mom had to practically lead him up on stage and back off again." Then with a wicked little wink, the guy added, "He wears a diaper, too. The way I hear it."

Again, we did our nods.

Then I said, "She's quite a gal, his mom is."

"The way I hear it," said a woman, "it's Mom who stole back the rights to his song. Six or seven years ago, when it was worth nothing."

We all had a good chuckle about that.

"Plus," said one baldie, "she's responsible for that deal with their new label. The Donners, I hear, get fifty percent of every sale."

Someone else said, "It's two hundred million sold now. World-wide."

A third said, "It's half a billion, if you count the pirates."

I just nodded and listened, and nodded some more.

Then a younger woman — a blonde with fat glasses who had married into the circle — asked, "But what does the rest of the song mean?"

She was looking at me, I realized.

"What's 'Will Be' still got to tell us?"

I didn't have any special clue. But she seemed to expect something out of me, which is why I said, "Westfall's our next President."

I'd read it somewhere, and I wasn't the only one.

"A gray-beard leads us into battle," quoted one of the know-everythings. "That's got to be the Senator. It's got to be!"

Then someone else said, "It's with China, the war is."

As if there wasn't any doubt.

"The crowded man reaches for his island," the quoter continued. Then he paused, waiting for everyone's eyes to settle on him. And that's when he informed us, "The Mainland is going to invade Taiwan."

We couldn't stop agreeing with him.

Then his loyal wife added, "And we'll win that war, too."

"Blood on the water, blood on the land," he sang. Worse than Marv, even. "And when blood is in the sky, the fight is won."

"Blood in the sky?" I asked.

"Space warfare," he replied. In an instant. As if he'd written the line himself.

It went on that way for most of the evening. Even when it was boring — when we were repeating the same verses for the fiftieth time — we couldn't seem to drop the subject. I didn't hear a whisper about anyone's kids or spouses or jobs, and nobody heard anything about my adventures, either.

I did try to bail out. Once. I was up at the bar, shelling out too much for my second beer, and a tall woman appeared next to me, saying, "Steve? Steve Dubrook?"

I looked at the name tag, then the face. Two or three tucks had left her skin stretched over old cheekbones. A tight little mouth smiled, and that's when I remembered Jean. Our class president and valedictorian. She went off to the Ivy League, I remembered, and came out a tough, successful lawyer.

I sputtered something like, "Hello. How's stuff, Jean?"

"We were just talking," she confessed, gesturing at the best-dressed group in the place. "'Who knows him best?' we asked ourselves. At this event, I mean. And I think it's you, Steve Dubrook."

"No," I said. Pointblank.

But she didn't believe me. "You two used to hang out together — "

"We shared a locker," I began.

"And," she added, "you listened while he abused that poor guitar. Remember those lunchtime concerts — ?"

"I sat there once or twice. I guess."

She laughed. As if I was an idiot, she shook her head and said, "Judging by those lukewarm responses, I'm guessing that you don't see Marvin anymore. Is that a correct assessment, Steve?"

Jean was a stuck-up bitch in high school, and life just seemed to have honed those talents.

"That's too bad," she told me. Then laughing again, she added, "What you should do, you know, is send a gift to your old buddy. With a note. A nice gift and a pleasant note telling him how happy you are for his well-deserved success."

Then she said, "I've already sent my gift."

I had to ask, "Why bother?"

She found my stupidity to be fun. "Because," she told me, giggling

like a school girl. "Because that little shitfaced drug-addict is the most important and powerful man in our world today."

The economy kept up its robust collapse.

By New Year's, my store was suffering. My families were going to the cut-rate supermarkets, and my loyal customers — the ones who started with my father and stayed with me through lean times — were getting to that age where they were eating little, or being shipped off to nursing homes, or they were dead.

I wasn't bankrupt. Things weren't that bad, yet. But even after cutting back on payroll and working seventy hour weeks, I could see a bankruptcy in my personal future.

Meanwhile, Marv was prospering.

He and Mom bought the old Redhall mansion, then sank a quick million into its restoration. They moved in Christmas morning, and immediately the VIPs started falling over themselves, eager for an audience with our resident Visionary.

Billionaires paid for the privilege. I heard.

While politicians and the Hollywood-types gave what they could. I'm assuming.

Every night, the news gave an update on Marvin Donner's social calendar. In February, it was the President himself. The old war hero dropped into town in Air Force One, just for the honor of standing on that wide old porch, shaking hands with a fellow who the Secret Service, on any normal day, would have watched extra close.

Asked what he and the old hippie had discussed, the President said, "Issues. Trends. The promise of the future."

In other words, "No comment."

Next week, Senator Westfall announced his candidacy from the same porch. Marv stood next to him, staring off into nothingness. The Senator stroked his gray beard for the cameras, then told the nation his intentions: His only goal was to protect and preserve everything that Americans deserved and rightly expected. Who could argue with that? And then he mentioned the Chinese without mentioning them. "Who else has a mandate to lead in times of strife and struggle?" he asked us. "Who else is there but me?"

About that time, I got up the nerve to do what Jean recommended. The way I figured it, it wouldn't hurt. And maybe, just maybe, Marv would throw some business my way.

Since I didn't know his eating habits, I decided on fruit. I put together a dozen big baskets of everything. The best and the exotic. Then after a good deal of hard thinking and doubts, I settled on a simple note written with my best pen.

"Missed you at graduation," I wrote.

"All the best.

"Steve Dubrook."

The baskets and my note were sent, and nothing happened.

Which was a surprise, somehow. Like when you have a lottery ticket that turns worthless. That kind of surprise.

Then it was weeks later, in the spring, and I got back to the apartment late one night, turning on the TV, the news telling me that Vladivostok had thrown off Moscow's shackles and Westfall was leading in every poll and some astronomers in Chile had followed a suggestion in the "Will Be" lyrics. "The great comet comes from under our feet." Sure enough, a giant lump of ice was falling toward the sun, its orbit ready to swing it within a couple million miles of the great Marvin Donner.

And that's when the phone rang.

I figured trouble at work. One of the old freezers passed on, probably. I picked up, starting with a crisp, "What is it?"

The voice at the other end introduced herself as Miss So-and-so, and I was cordially invited to share dinner with Mr. Donner. "Would tomorrow night be convenient?" I heard. "Perhaps at seven o'clock?"

I knew it was a joke. It had to be.

But his social secretary didn't give me time to make an ass of myself. "A car will pick you up, if you wish," she told me. "At home or at work."

"Home," I blurted.

"That would be best, sir."

"This is...this is for dinner...?"

"Yes, sir," she told me. Smooth as can be. Then she added, "And we ask that you come alone, Mr. Dubrook. And please, let's keep this meeting strictly confidential."

For every reason, I was excited.

Nervous.

Nearly sick to my stomach, frankly.

The car arrived at a quarter till. It was an ordinary sedan driven by some ex-Marine-type who greeted me by name, then said exactly three more words to me.

"Buckle up, sir."

We arrived at the Redhall at exactly seven. A big iron gate swung open for us, and the driver let me off at the front door. Alone, I climbed the marble stairs and walked across the enormous porch, thinking of all those important people who had come here, and because of it, practically doubling over from my bellyache.

Just like the gate, the front door swung open for me. But instead of the butler that I expected, I found a young woman. Early twenties at the most. Tall and blonde, wearing tight slacks and a tighter shirt, and if anything, thinner than she was beautiful.

She said, *"Hello,"* with a soft, familiar voice.

Then she said her name just as I remembered her. *"Whitney Larson."* A songwriter and singer whose last album must have done dynamite business. Considering that even I knew who she was.

Whitney called me, *"Mr. Dubrook."*

I mumbled something about liking her songs.

"Oh, god," she said. As if surprised. *"Really? Thank you so, so much!"*

I just about panicked. What if she asked me questions about her music? But she thankfully dropped the subject, waving me toward a set of French doors, telling me, *"They're waiting in here, Mr. Dubrook."*

Here was some sort of parlor done up like a room in a museum. The tall chairs and big rug belonged to the late 1800s. Even the air tasted stuffy and old, I was thinking. As if I'd just stepped back in time.

They were Marv and his mother.

I knew Marv's face better than my own. That's what television does for a person. He was sitting in the tallest chair, and I looked at him and tried to smile, and he stared through me for what felt like a year, big pale eyes brightening up with what looked to me, of all things, like tears.

I tried to say, *"Good to see you, Marv."*

I don't know if I got the words out.

Then his mother was standing next to me. Maybe seventy years old, but vigorous as an old Chevy. At first, I thought she was smiling at me. Then, I wasn't too sure. But she told me, "It's good to meet you. It's always a pleasure to know my son's friends."

"And...it's good meeting you..." I managed.

Then I started to say, "Ma'am."

Marv cut me off. He shouted, "Is it?" The eyes fought to focus on me. His body fought gravity and a pair of clumsy legs, trying to climb out of that antique chair while he sputtered, "Is it? Is it?"

Whitney said, "No, love."

"No — ?"

"Dinner. He's here for dinner." The girl seemed like a pro. She grabbed the seer by his shoulders, then steered him toward me. "Darling," she purred, "Mr. Dubrook is a big fan of mine."

The pale eyes found me. His raspy voice said, "Are you? A fan?"

Jesus, I thought.

I said, "It's good to see you. How are you, Marv?"

The question was too much. Again, the eyes lost contact. The boyish face suddenly filled with little wrinkles, and he looked old. More frail than his mother, easily. But he managed to tell me, "Not real bad. You know?"

I nodded. As if I understood.

Then his mother placed herself between us, saying, "This is such fun. Let's continue this in the dining room. Shall we?"

WITHOUT QUESTION, it was some dinner.

Their dining room was enormous and fancy and very modern — as modern as the parlor seemed old — and we sat at one end of a glass table meant for forty, four fancy place settings waiting for us. Marv got the end position and an extra soft chair. His mother sat on his right, Whitney on his left, and when I hovered for a second, the girl patted the chair next to her, saying, "It's for you, Mr. Dubrook."

I settled.

Someone said, "Steve."

Marv's voice was different now. Clearer, louder. I looked up and saw him staring at me, his face excited now. Then he took in a big breath and

halfway flinched, pulling his head between his shoulders, and old Mom just patted him on the back, telling him, "No." Calmly and matter-of-factly, she said, "This is dinner. Just dinner." Then she told him the date.

Whitney leaned close to me, and as if we were in study hall, she whispered, "It's a matter of time. Marvin is uprooted in time."

All I could do was nod and say, "Huh."

"Uprooted," she repeated, as if it was the official medical term. "One of our recent visitors was a Nobel winner," she continued. "A physicist. Or a mathematician. Either way, he explained that somehow Marvin's brain works backward. Sometimes the electrons travel in reverse inside him, and all of a sudden, the future turns into his past. Which is why he remembers things that haven't happened. And why he can seem, now and again, a little bit confused."

Again, I said, "Huh."

She looked at Mom. "Is that the way Dr. Roonie explained it?"

The old gal shook her head. "Not really. No." But instead of setting us straight, she wadded up a napkin and dabbed the spit off of her son's mouth and chin.

The kitchen door opened. I found myself glad for the interruption.

But instead of a fancy meal brought on silver trays, I saw another ex-Marine type carrying a pair of huge white sacks from McDonald's.

Mom tore both sacks open, then handed out the treasures.

"Mr. Dubrook. A Big Mac, or a fish sandwich?"

"A Big Mac. Please."

"Shake or pop?"

"A shake...I guess..."

"We have both," she promised.

I was nervous and a little confused. "Okay," I said. "Both."

Which made her grimace. But she pushed two cups toward me, then made a third cup with one hand, holding it to her mouth until the ex-Marine understood, his solid legs carrying him out of the room in a dead sprint, then back again, a cold can of pop in hand.

The rest of the meal was only a little more soothing.

Whitney kept trying to explain Marv's state-of-mind. Or lack of it. And I tried to understand what she was telling me. Dinner for her was a diet Coke and a fish sandwich, minus the fish. When she wasn't picking

at her own food, she helped Mom deal with Marv. Two Big Macs were sawed into bite-sized pieces, and the women used their fingers, giving the poor guy advice about when to chew and when it was time to swallow.

I tried not to stare.

I tried to join in the conversation and give reasonable answers to the occasional question thrown my way. Once or twice, Whitney asked about my life. Then Mom would steer us back to her son. How did I think the media treated him? Fairly, or not? I said, "Pretty well, I think," and I sensed from her face that it wasn't the best possible answer. But before I could make another stab at it, she shook her head, telling me:

"You know, you're the only one who's gotten to visit us. Among his childhood friends, I mean."

I guess I felt honored. That's what I told her, at least.

She wiped her son's mouth. Not gently, but hard, like someone who couldn't remember when she wasn't wiping that mouth.

Then Marv blurted out, "I asked." He swallowed and said, "For you to come *here*."

I looked at him. "Thanks."

"Old...friend..." the poor guy croaked.

"Yes, dear. Steve is a friend." Mom wiped again, even harder this time.

I put down what was left of my sandwich.

Marv reached for me. Despite eating burgers and probably getting zero exercise, he still managed to be awfully thin. The hand was bones and pink fingernails and those pads of callus that guitar players get.

On the spur of the moment, I asked, "Do you still play much, Marv?"

"Want to hear...?" he asked. A devilish grin filled his face. Then to his mother and his apparent girlfriend, he said, "Alone. In my room."

Neither woman spoke, nor moved.

Just like that, Marv was in charge. By himself, he tried to rise to his feet. Midway up, he paused and took a deep breath. Then I joined him, putting a hand under a skinny arm, feeling like a giant when I eased him into the standing position. Both women watched me, and I couldn't read either of their faces. Then Marv pulled himself out of my hands, and he kissed both women on their mouths, telling them in a quiet, practiced way, "I love you."

Then he sagged up against me, and to nobody in particular, he said, "It's all right. It's fine."

HIS BEDROOM must have been the library once. It was on the ground floor, and it was huge, the tall walls covered with fancy, mostly empty bookshelves. Marv had me close the door. I felt like a high schooler spending time in a buddy's house. I kept my voice down. I asked him, "Where do you want to go?" and he had me ease him down on the edge of his enormous bed. Then I took the trouble of picking up a fancy-looking guitar, all bright and clean with a red-and-black checkered sling to ride the shoulder. Turning toward him, I asked, "Is this okay — ?"

Marv was leaning forward, showing me the top of his head.

Intentionally, I mean. Ghostly fingers pulled apart the long hair, and where it was thinnest, I could see the vicious scars caused by his car crash.

"I have headaches," he said. "Always."

I said, "I'm sorry."

"Maybe that's why..." he began. Then he hesitated, giving me a long, sad look before he told me, "Out of kindness, maybe. Because of my pain?"

I didn't have a clue what he was telling me.

All I could think of saying was, "Maybe."

The guitar sat on the bed next to Marv. Forgotten.

Up on the wall, between a window and the closed door, was a long whiteboard. Like something you'd see in school. The date was written on it in big black numbers.

"Are you all right, Marv? Do you need anything?"

He said, "No." Then, "Yes."

I started to ask him, "What do you need — ?"

But he interrupted me. "I'm sorry I couldn't make it. To graduation, I mean."

"You had better things to do," I told him.

He snorted, then laughed. Which made him wince in pain, and he doubled over and coughed a few times. Weakly.

From the other side of the door, his mother called out, "Are you all right, Marvin?"

"No," he replied. Then he was laughing again, his face twisted from the pleasure or the pain. I couldn't tell which.

Only one set of shelves had books. It looked like an old woman's library. Reader's Digest condensations, plus a few hundred romance paperbacks. I stared at the books because I didn't want to look at him anymore. Then I heard Marv telling me, "Yeah, it's there," as if I knew what he was talking about.

"Right where you expect it," he told me.

I looked at him. Not a clue in my head, I asked, "What are you talking about?"

He just smiled, looking just like that goofy little twit that I'd barely known all those years ago. Quietly, in a near-whisper, he said, "It's on the top shelf. Behind the books."

"Are you still smoking ditch weed?" I asked.

He winked at me. And chuckled.

I told him, "I hope you know, I never looked in your hiding place."

No response.

"Except," I added, "when they told me you were hurt. I was afraid they'd search our locker, and I'd get blamed for your shit."

"Look," he urged me now. "I want you to."

I reached high, expecting a plastic sack full of drugs. But instead of that, I found an old spiral notebook, the paper gone yellow and brittle. I opened it and flipped through the tired pages. It took a few moments before I finally realized what I was seeing. Words, written fast and sloppy. But I could decipher enough words to realize, "This is your song. Isn't it?"

"My song," he chimed.

Then again, he told me, "Look."

I thought I was. But then something obvious hit me, and I understood what he wanted. Trembling, I flipped to the last page, and I read it. After so many months of hearing Will Be on every radio, I knew instantly that this verse had never been sung in public.

I said, "Shit."

"You found it," he whispered. Then with a louder voice, he added, "This isn't the time. It's too early."

I read the verse three or four times.

Always, my eyes stuck on the name Steve Dubrook.

Then I couldn't read it anymore, and not knowing what to do, I put the notebook back in its hiding place, and I started for the bedroom door. I don't remember being angry, or scared. I just wanted very much to be somewhere else in the world.

"Come see me again," Marv told me.

That's when I turned and told him, "You know, I wasn't your friend. Trust me on that. We shared a locker, that's all. I barely knew you...you little shit..."

Marv smiled anyway, and he lay back on his bed, telling me, or maybe telling himself, "Some days, I want to die so much..."

I practically ran for the front door.

His mother was sitting in the parlor, waiting for me. Her face was a mixture of anger and something else. Indifference. Acceptance. Whatever. She was bolt upright in one of the old chairs, her hands knotted up in her lap and her eyes cutting through me until I had to tell her, "I won't do it. It's bullshit, and I won't."

She pulled her eyes shut, then said, "But you don't have any choice. Do you?"

I turned and walked outside, crossing that giant porch. Whitney was waiting. She came at me and smiled in the oddest way. And as I was trying to slip around her, she planted a little wet kiss on my lips.

"What's that for?" I sputtered.

She just smiled in a bleak, forgiving way.

Again, I said, "What?"

"I'm an excellent judge of people," the girl purred. "And I think you're really a fine person, Mr. Dubrook. When it's time and you do it, you'll be acting out of kindness. Just like Marv wants —"

"Fuck Marv!" I screamed.

And that was the moment, the very first one, that I actually felt that maybe I could, like the song says, "Put a bullet into the singer's face."

The rest of my story is more or less public.

For a few more months, I tried to live my own life, taking care of my business and enjoying the occasional date. There were days when I very nearly convinced myself that the last verse would remain secret. A private mistake. But there were also days when Whitney or Mother Donner would

come into my store, pretending to need groceries. In other words, they were checking up on me, and reminding me that they hadn't forgotten.

One day, I walked up to that old woman. "I won't do it," I promised. "I won't shoot him, or kick him. Or even see him again."

Which would have been welcome news, if you're a normal mom with a normal kid. But she wasn't. In her mind, I was an agent of God or the Future. Whichever. And since I needed prodding, she must have gotten Whitney to talk with *Rolling Stone*.

At the end of the interview, apparently by accident, the girl let it slip that there was a secret final verse. Then she told the world what was supposed to happen. And if that wasn't sick enough, she let the reporter know just enough to follow the trail back to me.

I thought I had a plan ready.

If the secret ever broke, I told myself, I was going to empty out the cash drawers and my bank accounts and borrow on my credit cards. Then I would disappear into Mexico, or out on the high seas somewhere.

The problem was that I needed time to vanish.

Which the press didn't give me.

I went to bed as one person, then woke up famous. Infamous. Whatever.

Police had to set up barricades around my store to hold back the crowds, then the car traffic got too heavy, and they shut down the street in front of us. But still thousands came through the doors in those first days, hoping to see the famous angel of death, and sometimes they would buy a pack of gum or a package of T-bones. And that's when I realized that not only was I stupid to ever think that I could actually vanish, but I was even more of an idiot to think that I'd want to.

Letterman and Leno had fun at my expense. Those old bastards told their stupid jokes, and I got angry. But it didn't do any good, so I just stopped watching them.

People I met and people who'd known me for years wanted to know how it was to be part of the most famous song of all time.

But really, isn't that what we've all been doing for the last year, anyway?

Everything's been decided for us. Everyone has agreed. In another year-plus, Westfall will be our President and we'll be fighting with China.

And of course we'll win. We know that's the truth because some guy who can't even hold up half a conversation once wrote something that never actually mentioned the Chinese.

Sometimes I lie awake, and I just wonder.

Lucee's back in my life. Now that I'm famous, she comes into the store every day. Just to wink and wave and hope that I'll give her two seconds of time.

I'm the hub of history, she tells me. When I give her the chance.

In these last weeks, about a hundred different lawyers have sent me business cards. One of them wrote, "Think of me afterward. If it looks like a mercy killing, I can get you 2 to 5. Down to time served, with good behavior."

Just the other day, I was pulled over for doing fifty in a thirty-five zone. But the cop recognized me and let me off with a warning. Or two warnings, really. He said, "Mr. Dubrook," with a quiet, serious voice. He said, "The kind way, really, is to put it here." Then he touched his own temple, giving me this knowing little wink.

Honestly, a man has to just wonder.

There's a thousand ways to write, "Go to the store," and every version works well enough. So why couldn't some head-wounded druggie write a bunch of nonsense that only seems to have come true?

We've been playing this huge and dangerous and very stupid game.

Tomorrow, Senator Westfall blows back into town. He's leading in the polls by barely thirty points, and his opponent has grown his own scraggly gray beard. Which means it's time for another visit to poor Marv.

Maybe I could get onto the grounds, and with a cheap revolver, put a bullet into the mansion's fancy woodwork. Then I would sit in a prison cell for the next few years, safe and tidy, and people around the world would realize that not everything in that damned song was going to come true.

Except I don't want to sit in any prison. Ever.

And I suppose I could kill myself now. Today. That would hopefully put an end to this craziness.

But I'm not going to be that kind of hero.

Just yesterday, Lucee came into the store, and she cornered me against

the greeting cards. She told me exactly how many days it was until the big day, then she asked me how it felt to be one of God's angels.

"Shit," I said.

I told her that I was just going to keep living my life. And why not? My business is booming. There's some nice ladies who find me intriguing, but they don't bring these things up over dinner. Or in bed. Plus Letterman's people are talking about a little something next month. And of course, people like you are paying for this interview.

For me, life has never been better.

But Lucee couldn't drop it. She kept calling me God's angel and asking how it felt. And finally, I flat-out told her, "I'm not going to shoot anyone. Particularly not Marvin Donner. When the big day comes, I'm going to be somewhere else. And I'm not telling where."

"But you can't," she told me. "How can you avoid your destiny?"

"Easily," I replied.

"But if you don't do this one thing," she sputtered, in horror, "then our future...it's totally and forever changed...!"

Which made me laugh.

That's what I did.

I just held my belly and shook my head and laughed, and after a little moment, I said, "Darling." I said, "Don't you get it? That's the way it's always been." ☞

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COMING ATTRACTIONS

SO HERE WE ARE in 1999 and the countdown is on. Well yes, the digits are going to roll over on our temporal odometer, but much more importantly, we're counting down the months before we celebrate our Fiftieth Anniversary. All the guests at our bash haven't yet made reservations, but word has it that we'll be seeing Jonathan Carroll in our big October issue. We'll keep you apprised of the guest list at this party.

More immediately, we can look forward to our February issue as the one that introduces the work of a talented new writer by the name of Paolo Bacigalupi. "Pocketful of Dharma," our cover story next month, is Mr. Bacigalupi's first sale, and it's a corker—a fresh and refreshing vision of the near future in the Far East.

Also on the schedule for February are Gordon Eklund's hardboiled novella "The Cross Road Blues" and a new short story by the popular Peter David, as well as columns by Charles de Lint, Paul Di Filippo, and Doug Winter sets his sights on some unusual works of fantasy next month. In months to come, we'll also have stories by Paul J. McAuley, John Morressy, Rob Chilson, and Lewis Shiner. Subscribe now to make sure you won't miss any of the '99 goodies.



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CURIOSITIES

MURDER IN MILLENNIUM VI BY CURME GRAY

FIRST READ
Damon Knight's
In Search of Won-
der (1956) as a

teenager in the late sixties. In the chapter titled "New Stars," Knight spent a few thousand witty words dealing with a book that even Knight, master critic, found baffling. *Murder in Millennium VI*, by Curme Gray (1910-1980), was that rarest of sf creations: a book set in the far future amidst a very bizarre culture, narrated by an inhabitant of that period in terms easy for only a fellow native to understand.

Knight's essay still offers the best synopsis and analysis of *Murder's* convoluted plot, which involves the death of the governing global Matriarch, and the machinations among the four members of the Mitchel family (narrator Victor, his sister Hilda, and their parents Wilmot and Alec) to replace her and find her killer before their society crashes. But Victor Mitchel had more luck solving his mystery than I did finding a copy of this book. The author

was faceless, the single edition of this 1951 novel had been issued by Shasta Press (1948-1957). I searched diligently for this rarity for three decades, finding a copy only this year.

Happily, perused even in the bright light of postmodern sf, *Murder* remains unique. As Knight put it, "For sheer audacity and stubbornness, Curme Gray's performance is breathtaking." Wonderful aspects Knight omitted to mention include Gray's keen Orwellian riffs, the pathos of the love story, and insights into a cybernetic society.

Such a lost book can hardly be called an influence, but it's tempting to try to place *Murder* in a line of development. Had Gray learned from Cordwainer's Smith "Scanners Live in Vain" (1950)? Did David Bunch or Felix Gotschalk or the Brian Aldiss of *Report on Probability A* (1968) ever sympathetically channel Gray? Such Borgesian speculations only begin to assign this highly reprintable book its true esthetic weight.

— Paul Di Filippo

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